SAMSUNG

LCD TV
LA22N21B

Owner's Instructions

Before operating the unit,
please read this manual thoroughly,
and retain it for future reference.

SAMSUNG ELECTRONICS

ON-SCREEN MENUS
PC DISPLAY
PICTURE IN PICTURE (PIP)
TELETEXT

This device is a class B digital apparatus.

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ON-SCREEN MENUS
PC DISPLAY
**PICTURE IN PICTURE (PIP)**
TELETEXT

Precautions When Displaying a Still Image

A still image may cause permanent damage to the TV screen.

• Digital Ready TV: When you select the regular screen (4:3) mode to watch an SD-grade digital broadcast (and the set-top box output is 480p).

• Digital Ready TV: When you select the wide screen (16:9) mode to watch an SD-grade digital broadcast (and the set-top box output is 1080i).
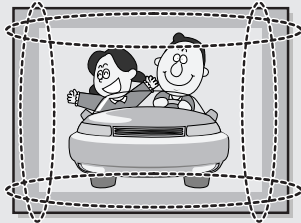
Although digital broadcasting must be in the wide screen (16:9) HD format, broadcasters sometimes show programs made originally in the regular screen format (4:3) by converting the signals into digital form, in which case the left and right side edges of the screen are cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amount of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

• Digital Ready TV: When the TV receives HD-grade signals (and the set-top box output is 1080i).
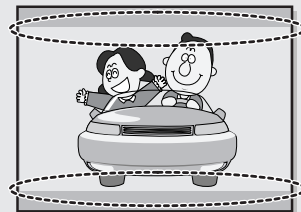
When you watch a digital HD-grade broadcast on a regular (4:3) TV with the screen size "16:9" or "Panorama" selected, you will be able to watch the program but the top and bottom edges of the screen will be cropped.
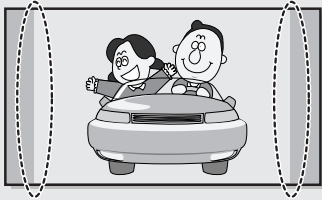
Note : If the borders at the top, bottom and the center of the screen remain fixed for an extended period of time, the amount of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

- Integrated Digital TV (Wide-screen): When the TV receives SD-grade (regular) broadcasting signals (receives 480p regular signals).

- Digital Ready TV (wide-screen): digital TV: When the TV receives SD-grade (regular) broadcasting signals (with a set-top box).

- When you watch an analogue (regular) broadcast on a wide-screen TV (with the 4:3 screen mode selected).

Although digital broadcasting must be in the wide screen (16:9) HD format, broadcasters sometimes show programs made originally in the regular screen format (4:3) by converting the signals into digital form, in which case the left and right side edges of the screen are cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amount of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

- When you watch a DVD, CD or a video in wide screen (21:9) format on a wide-screen (16:9) TV.

- When you connect a computer or a game console to the TV and select the 4:3 screen mode.
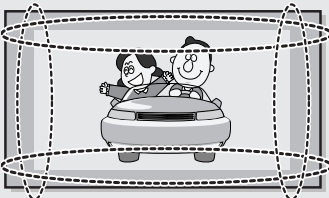
If you connect a DVD player, computer or a game console to the wide-screen TV and watch a movie or play a game in regular (4:3) or wide (21:9) screen mode, the left and right side edges, or the top and bottom edges of the screen will be cropped.

Note : If the borders at the left, right and the center of the screen remain fixed for an extended period of time, the amount of light transmission will also remain varied and as a result the borders may leave traces.

Do not leave the screen in pause mode for extended periods of time as you may experience the same problem with products by other manufacturers.

Contents

Contents

Symbols

Press   Important   Note

Viewing the Control Panel

SOURCE ⊕   MENU   – ◢ +   ⌄ C/P.⏻ ⌃   ⏻ POWER

❶   ❷   ❸   ❹   ❺

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❻

❼

❽
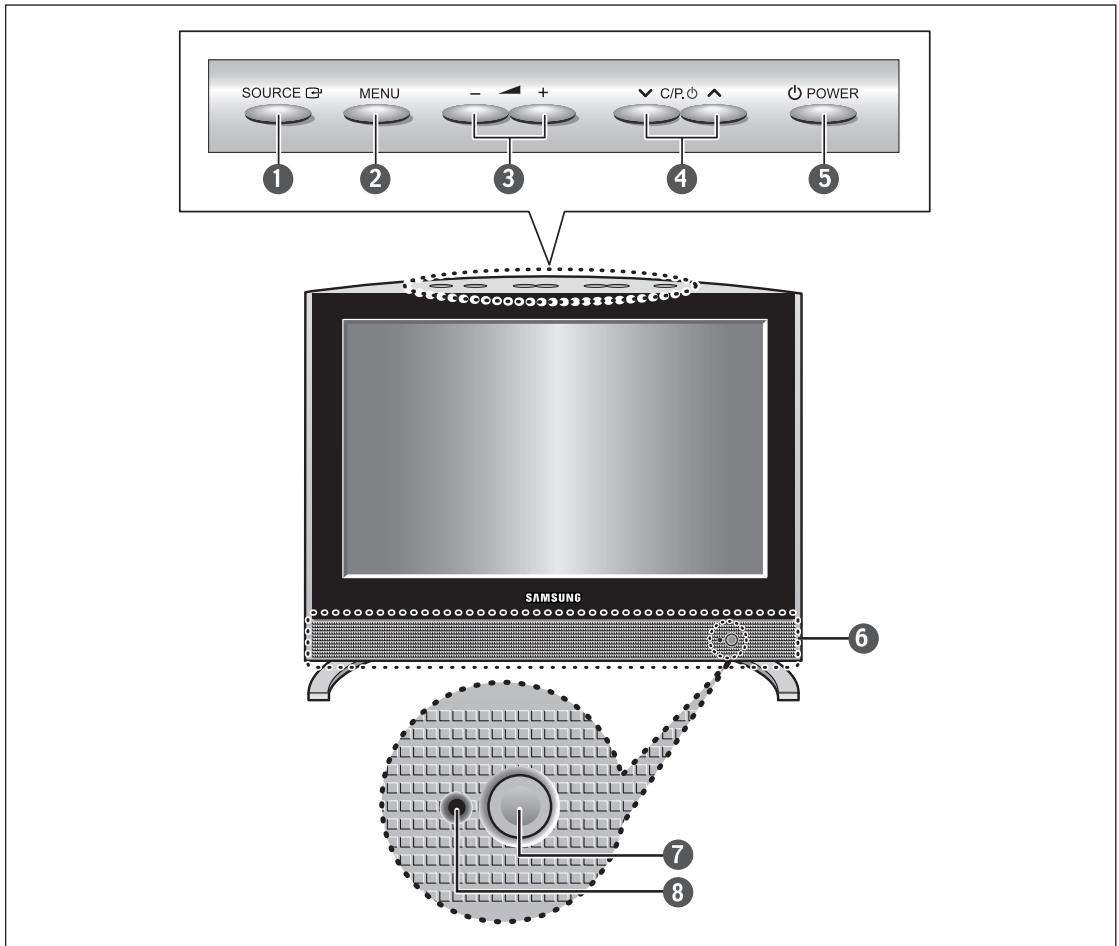
❶ SOURCE ⊕

Displays a menu of all of the available input sources (TV - AV - S-Video - Component 1 - Component 2 - PC/DVI).

❷ MENU

Opens the on-screen menu.

❸ – ◢ +

Moves the selector left or right on the OSD.
Increases or decreases the level of audio
volume and the values of the selected function.

❹ ⌄ C/P. ⏻ ⌃

Moves the selector up or down on the OSD.
Increases or decreases the channel number.

❺ ⏻POWER

Turns ON/OFF your set.

❻ SPEAKER

❼ REMOTE CONTROL SENSOR

Aims the remote control towards this spot on the TV.

❽ POWER INDICATOR

Lights up when you turn the power off.
When you turn the power off after selecting On/Off
Timer, green light will appear.

Viewing the Connection Panel

Option

COMPONENT IN 2

POWER   DVI (HDCP)   Y   Pb   Pr   L−AUDIO−R   ANT IN

COMPONENT IN 1

WOW, SRS and (●) symbol are trademarks of SRS Labs, Inc.

Power Input

AUDIO
R
L
VIDEO
S-VIDEO
PC AUDIO
IN
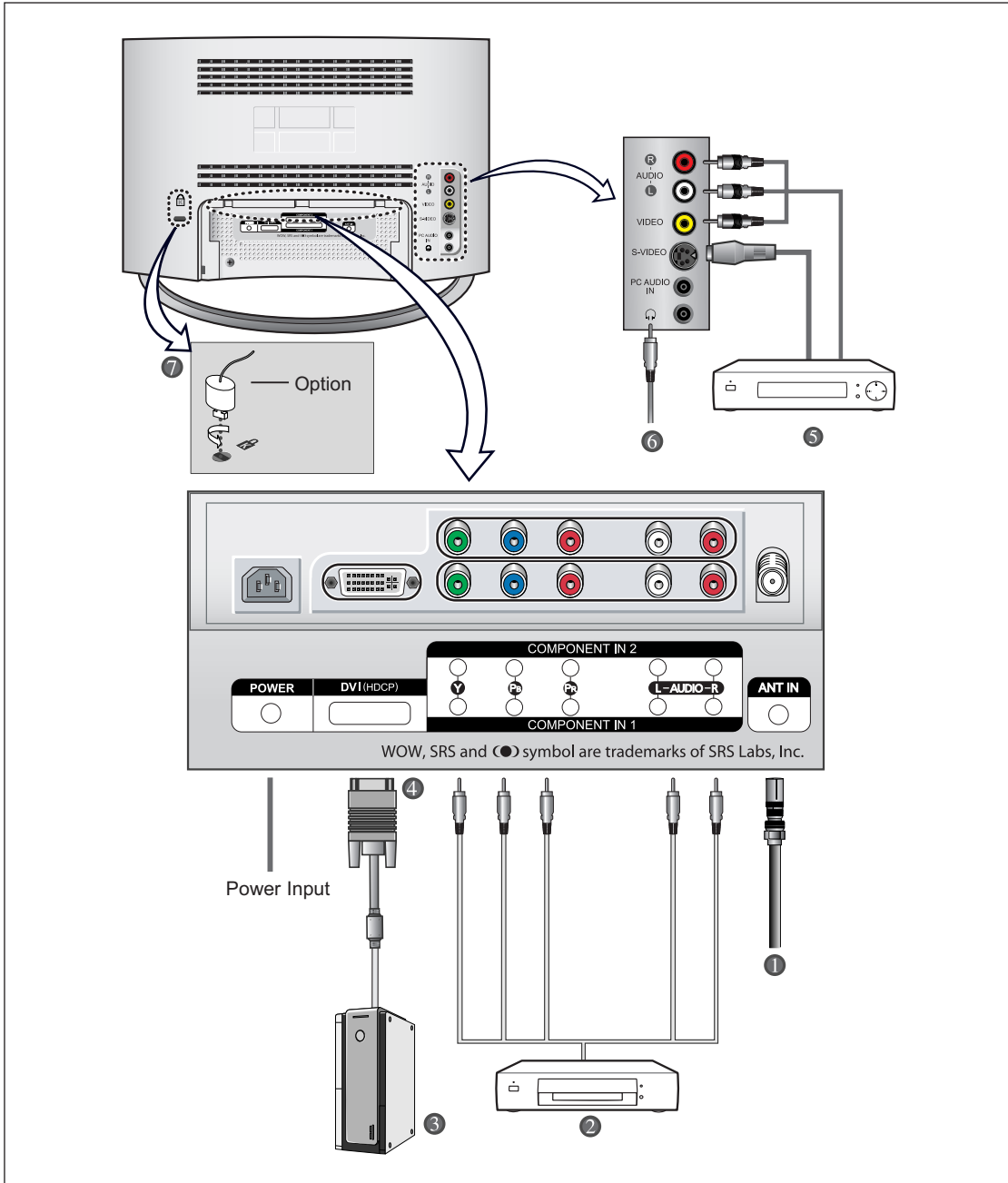
☛ Whenever you connect an audio or video system to your set,
   ensure that all elements are switched off.
   Refer to the documentation supplied with your equipment for
   detailed connection instructions and associated safety precautions.

Viewing the Connection Panel

❶ *Connecting an Aerial or Cable Television Network (depending on the model)*
To view television channels correctly, a signal must be received by the set from one of the
following sources:
- An outdoor aerial
- A cable television network
- A satellite network

❷ *Connecting a Set-Top Box, VCR or DVD*
- Connect the RCA cable to **"L - AUDIO - R"** on the rear of your set and the other end to "Audio Out"
  connector on the DVD, VCR or DTV Set-Top Box.
- The Y, PB and PR connectors on your component device (DVD) are sometimes labeled Y, B-Y and R-Y or
  Y, Cb and Cr.
- Connect RCA Cable to "Y", "PB" and "PR" on the rear of your set and the other end to "Component Out"
  connetor of the DVD, VCR, DTV Set-Top Box.
  Connect RCA audio cables to "L-AUDIO-R" on the rear of your set and the other ends to corresponding
  audio out connetors on the DTV or DVD.

❸ *Connecting a Computer*
- Connect the 24 Pin DVI connector to the PC video connector.
- Connect the stereo audio cable to the "PC AUDIO IN" jack on the rear of your set and the other end to
  the "Audio Out" jack of the sound card on your computer.

➤ 24 Pin DVI connector

Pin	Description	Pin	Description
1	Rx 2-	16	Output Signal Connection
2	Rx 2+	17	Rx 0-
3	Grounding	18	Rx 0+
4	No connection	19	Grounding
5	No connection	20	No connection
6	DDC Clock (SCL)	21	No connection
7	DDC Data (SDA)	22	Grounding
8	Analog Vertical Sync	23	Rx C-
9	Rx 1-	24	Rx C+
10	Rx 1+	25(C3)	Analog (Blue)
11	Grounding	26(C5)	Analog Grounding
12	No connection	27(C4)	Analog Horizontal sync.
13	No connection	28(C2)	Analog (Green)
14	DDC Input Power (+5V)	29(C5)	Analog Grounding
15	Self-Raster	30(C1)	Analog (Red)

Viewing the Connection Panel

❹ *Connecting a DVD Player or Set-Top Box to the TV with a DVI-D Cable*
- Connect a DVI-D cable (sold separately) between the DVI-I INPUT connector on the TV and the DVI connector on the DVD player/Set-Top BOX.
- Connect a set of audio cables between the PC AUDIO INPUT jack on the TV and the AUDIO OUTPUT jacks on the DVD player/ Set-Top BOX.

  ➤ If you are using a DVI-D cable to connect
    ◆ Be sure to connect the audio cable (sold separately) as shown above to get normal TV sound.
    ◆ See Appendix "Display Modes" for supported resolutions.
    ◆ The screen may have shifted to the right or to the left after connecting the cable.
      Don't adjust the screen position in a Digital Signal.
    ◆ Each external input Source device has a different back panel configuration.

❺ *Connecting External A/V Devices*
- Connect RCA or S-VIDEO cables to an appropriate external A/V device such as a VCR, DVD, or Camcorder.
- Connect RCA audio cables to "**L - AUDIO - R**" on the rear of your set and the other ends to corresponding audio out connectors on the A/V device.
- Headphones may be connected to the headphone output (❻) on the rear of your set.
  While the headphones are connected, the sound from the built-in speakers will be disabled.

❻ *Connecting Headphones*
- Plug a set of headphones into the 3.5mm mini-jack socket on the rear of the set.

❼ *Using the Anti-Theft Kensington Lock*
- This television has been designed to apply a burglarproof lock. (Refer to page 58)

Viewing Pictures From External Sources

Once you have connected up your various audio and video systems, you can view the different sources by selecting the appropriate input.

1   Check that all the necessary connections have been made (refer to pages **6** and **7** for further details).

2   ◆ **PC** button...
        Press the **PC** button to choose PC mode.

        ◆ **VIDEO** button...
        Press the **VIDEO** button to choose video mode.
        The input sources are displayed in the following order:
        AV - S-Video - Component 1 - Component 2 - PC/DVI

        ◆ TV button...
        Press the TV button to choose TV mode.

Inserting the Batteries in the Remote Control

You must insert or replace the batteries in the remote control when you:

- ◆ *Purchase your set.*
- ◆ *Find that the remote control is no longer operating correctly.*

1   Remove the cover on the rear of the remote control by pressing the symbol downwards and then pulling firmly to remove it.

2   Install two **AAA** size batteries.
- ◆ **+** on the battery against **+** on the remote control
- ◆ **–** on the battery against **–** on the remote control

3   Replace the cover by aligning it with the base of the remote control and pressing it back into place.

➤   Do not mix battery types, i.e. alkaline and manganese.

➤   **If remote control doesn't work!**

Check the following:

1. Is the TV power on?

2. Are the plus and minus ends of the batteries reversed?

3. Are the batteries drained?

4. Is there a power outage, or is the power cord unplugged?

5. Is there a special fluorescent light or a neon sign nearby?
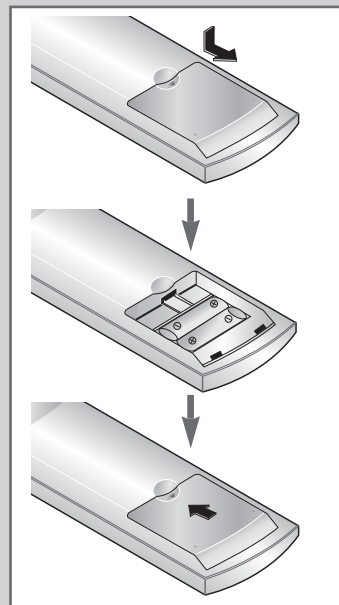
Viewing the Remote Control   (All Functions Except Teletext)

Television On/Off

Automatic switch-off
(Refer to page 37)

Numeric buttons for
direct channel access

One/Two-digit channel selection

Temporary sound switch-off

Volume up or down

Selects the TV mode directly
(Refer to page 8)

Menu display and change confirmation
(Refer to page 13)

Sound effect selection
(Refer to page 30)

DUAL I-II button
(Refer to page 33)

Picture size selection
(Refer to page 27)

Selects the PC mode directly
(Refer to page 45)

Press to improve the digital
video quality.
(Refer to page 26)

VCR/DVD FUNCTIONS
◀◀ : Rewind
■ :Stop
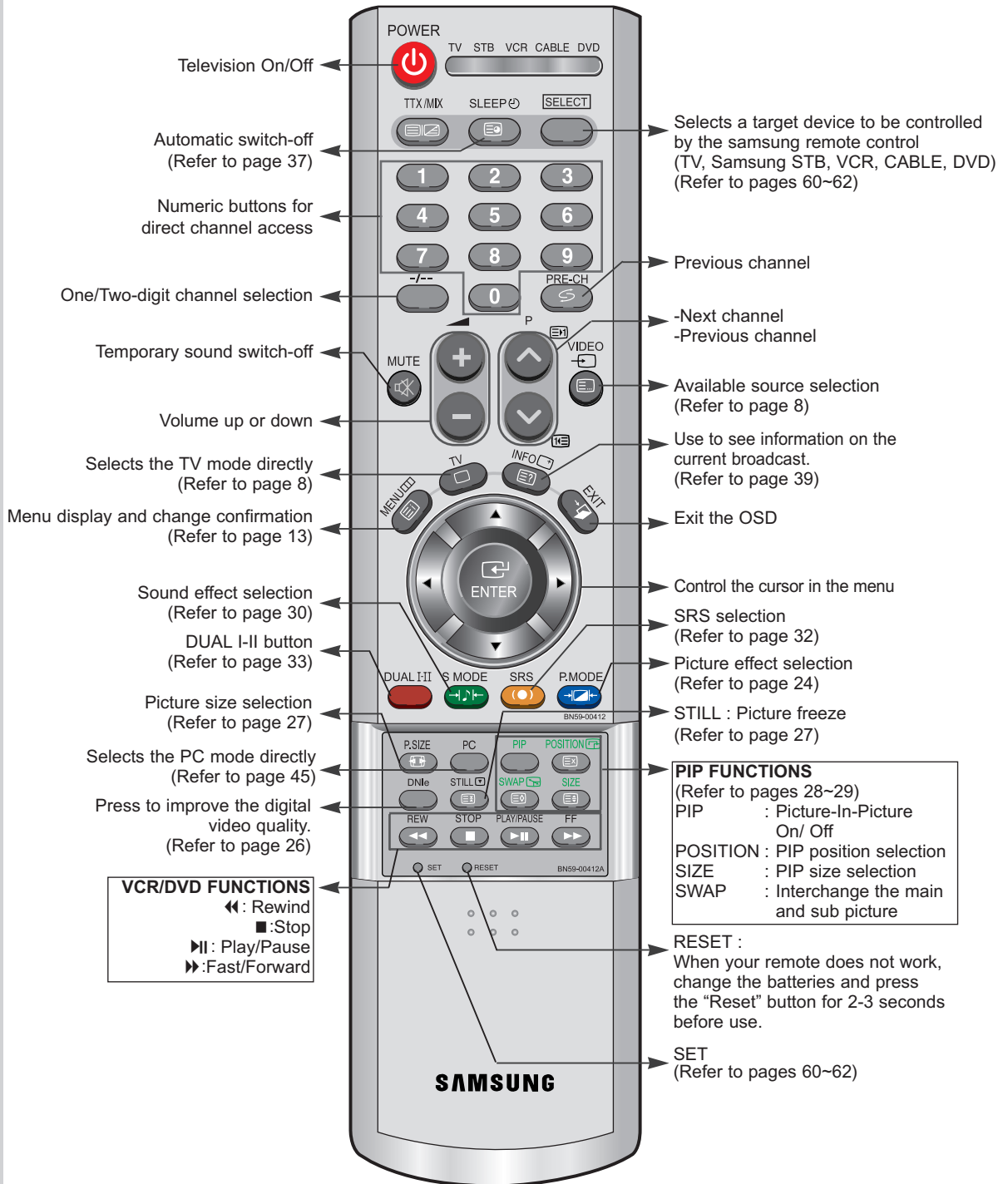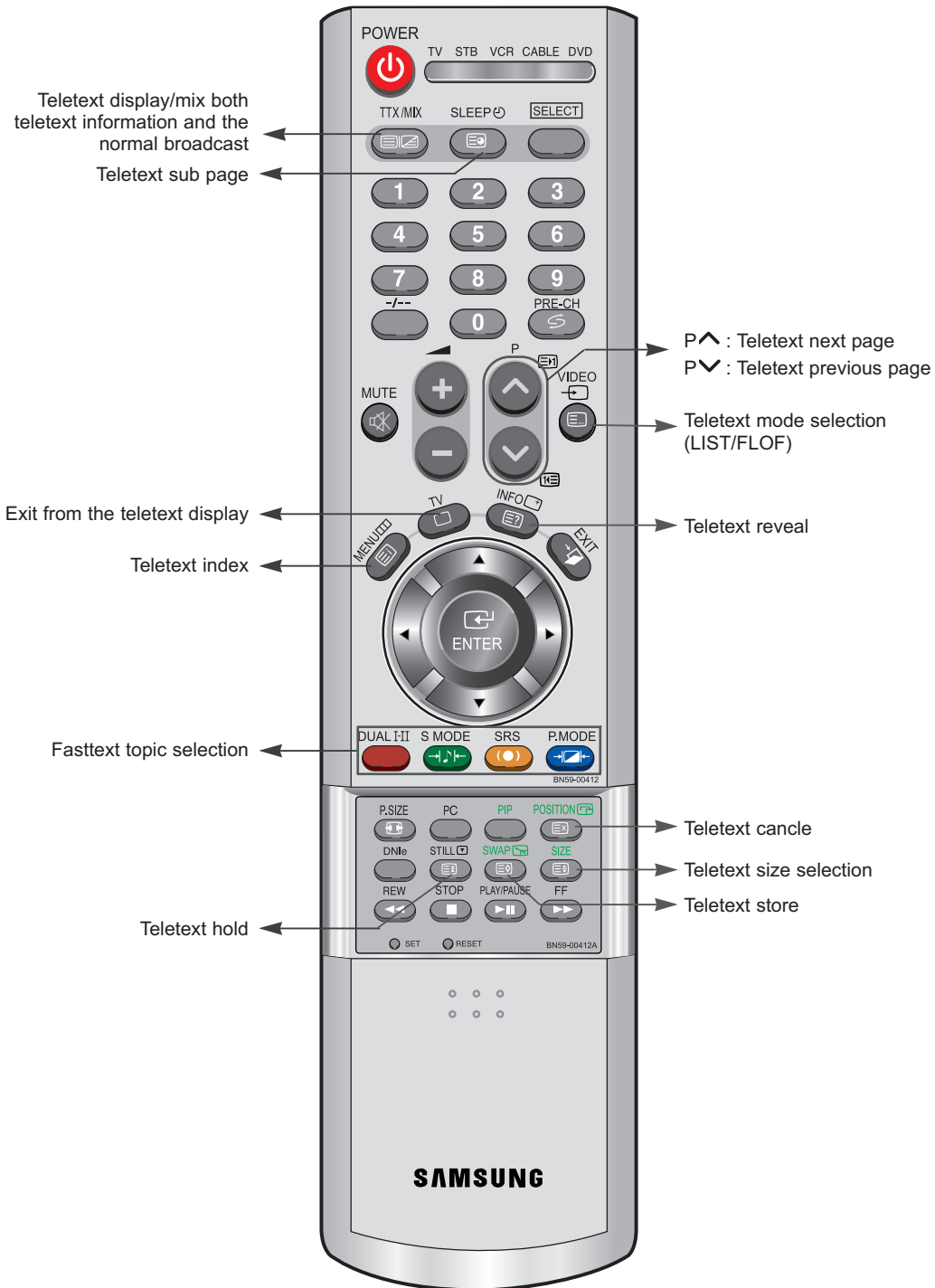▶II : Play/Pause
▶▶ :Fast/Forward

POWER
TV STB VCR CABLE DVD

TTX /MIX   SLEEP   SELECT

1 2 3
4 5 6
7 8 9
-/--   0   PRE-CH

P
MUTE   +   ∧   VIDEO

−   ∨

TV   INFO

MENU   ENTER   EXIT

DUAL I-II   S MODE   SRS   P.MODE
BN59-00412

P.SIZE   PC   PIP   POSITION
DNIe   STILL   SWAP   SIZE
REW   STOP   PLAY/PAUSE   FF
SET   RESET   BN59-00412A

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Selects a target device to be controlled
by the samsung remote control
(TV, Samsung STB, VCR, CABLE, DVD)
(Refer to pages 60~62)

Previous channel

-Next channel
-Previous channel

Available source selection
(Refer to page 8)

Use to see information on the
current broadcast.
(Refer to page 39)

Exit the OSD

Control the cursor in the menu

SRS selection
(Refer to page 32)

Picture effect selection
(Refer to page 24)

STILL : Picture freeze
(Refer to page 27)

PIP FUNCTIONS
(Refer to pages 28~29)
PIP   : Picture-In-Picture
                On/ Off
POSITION : PIP position selection
SIZE   : PIP size selection
SWAP   : Interchange the main
                and sub picture

RESET :
When your remote does not work,
change the batteries and press
the "Reset" button for 2-3 seconds
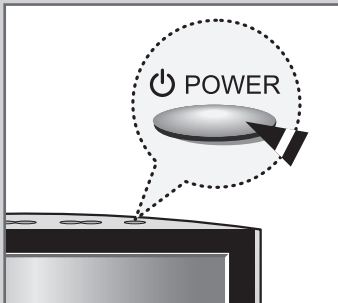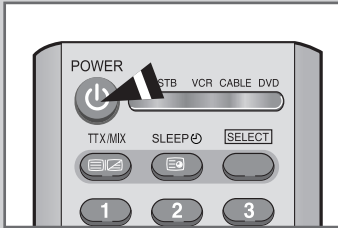before use.

SET
(Refer to pages 60~62)

➢ The performance of the remote control may be affected by bright light.

➢ You can use the remote control up to a distance of about 23 feet from the TV.
When using the remote, always point it directly at the TV. You can also use your
remote control to operate your VCR, Cable box, DVD player or Samsung Set-Top box.

Viewing the Remote Control

(Teletext Functions)

Teletext display/mix both teletext information and the normal broadcast

Teletext sub page

P∧ : Teletext next page

P∨ : Teletext previous page

Teletext mode selection (LIST/FLOF)

Exit from the teletext display

Teletext reveal

Teletext index

Fasttext topic selection

Teletext cancle

Teletext size selection

Teletext store

Teletext hold

POWER

TV STB VCR CABLE DVD

TTX /MIX   SLEEP   SELECT

1   2   3
4   5   6
7   8   9
-/--   0   PRE-CH

P   VIDEO

MUTE

TV   INFO   EXIT

MENU   ENTER

DUAL I-II   S MODE   SRS   P.MODE
BN59-00412

P.SIZE   PC   PIP   POSITION

DNIe   STILL   SWAP   SIZE

REW   STOP   PLAY/PAUSE   FF

SET   RESET   BN59-00412A

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Switching On and Off

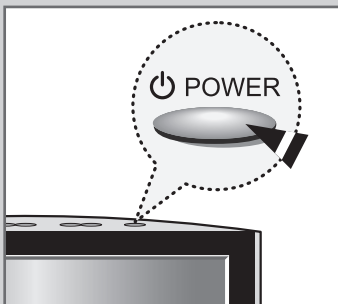*The mains lead is attached to the rear of your set.*

1   Plug the mains lead into an appropriate socket.

   Result: When the adaptor is plugged in, the red power indicator
   appears on the front of your set.

2   Press the ⏻ **POWER** button to switch on.

3   To switch off, press the ⏻ **POWER** button again.

Placing in Standby Mode

Your set can be placed in Standby mode in order to reduce the power consumption.

The Standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

1   Press the ⏻ **POWER** button.

2   To switch back on, simply press the ⏻ **POWER** button again
   or a numeric button.

➢   Do not leave your set in standby mode for long periods of
   time (when you are away on holiday, for example).
   Turn off by pressing the ⏻ **POWER** button.
   It is best to unplug the set from the mains and aerial.

Becoming Familiar with the Remote Control

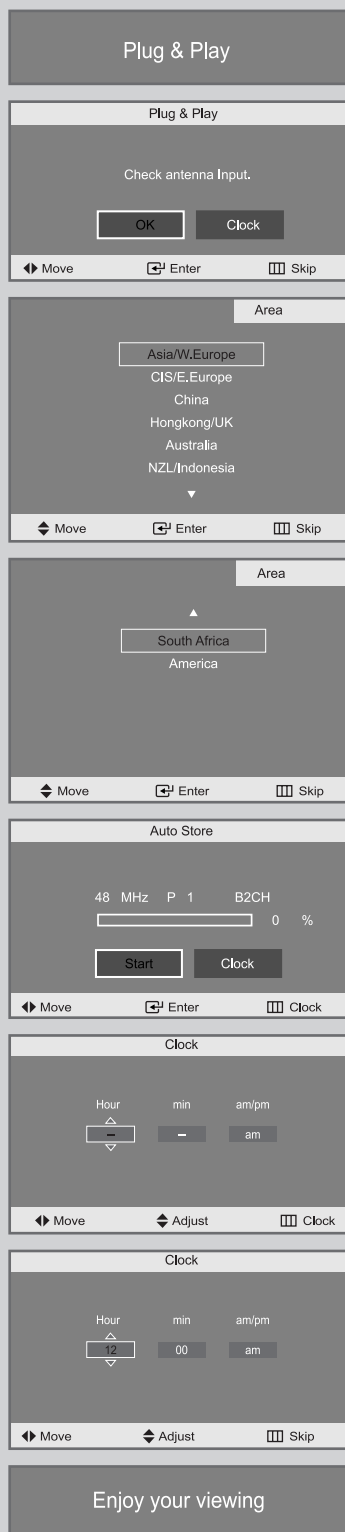*The remote control is used mainly to:*

◆ *Change channels and adjust the volume.*
◆ *Set up your set using the on-screen menu system.*

The following table presents the most frequently used buttons and their functions.

Button	Viewing Function	Menu Function
P ⌃	Used to display the next stored channel.	–
P ⌄	Used to display the previous stored channel.	–
PRE-CH	Used to switch repeatedly between the last two channels displayed. (**PRE-CH**; Previous Channel)	
⓪ ~ ⑨	Used to display the corresponding channels.	
-/--	Used to select a channel numbered ten or over. Press this button, and the "**--**" symbol is displayed. Enter the two-digit channel number.	
◢ +	Used to increase the volume.	–
◢ –	Used to decrease the volume.	–
MUTE 🔇	Used to switch the sound off temporarily. ➤ To turn the sound back on, press this button again, or press the ◢**+** or ◢**-** button.	
MENU ▥	Used to display the on-screen menu system.	Used to return to the previous menu or normal viewing.
EXIT →▯	Used to exit the menu system and return directly to normal viewing.	
▲▼	Used to move among the menu items.	
►	Used to select a menu item or increase the value of the selected item.	
◄	Used to return to the previous menu item or decrease the value of the selected item.	
⏎ **ENTER**	–	Used to confirm your choice.

Plug & Play

Plug & Play

Check antenna Input.

OK   Clock

◀▶ Move   ⏎ Enter   ⊞ Skip

Area

Asia/W.Europe
CIS/E.Europe
China
Hongkong/UK
Australia
NZL/Indonesia
▼

⬥ Move   ⏎ Enter   ⊞ Skip

Area

▲
South Africa
America

⬥ Move   ⏎ Enter   ⊞ Skip

Auto Store

48 MHz   P 1   B2CH
                             0   %

Start   Clock

◀▶ Move   ⏎ Enter   ⊞ Clock

Clock

Hour   min   am/pm
△
—   —   am
▽

◀▶ Move   ⬥ Adjust   ⊞ Clock

Clock

Hour   min   am/pm
△
12   00   am
▽

◀▶ Move   ⬥ Adjust   ⊞ Skip

Enjoy your viewing

When the set is initially powered on, you are automatically presented with a series of basic customer settings.
The following settings are available.

1   If the set is in standby mode, press the **POWER**(⏻) button on the remote control.

   Result: The message **Plug & Play** is displayed.
   It appears for a little while, and then the **"Check antenna input."** menu is displayed with the **OK** selected.

2   Press the **ENTER**⏎ button.

   Result: The country menu is displayed:
   Asia/W.Europe - CIS/E.Europe - China - Hongkong/UK - Austrailia - NZL/Indonesia - South Africa - America

3   Select your **Area** by pressing the ▲ or ▼ button.
   Press the **ENTER**⏎ button.

   Result: The **Auto Store** menu is displayed with the **Start** selected.

4   Press the **ENTER**⏎ button.

   Result: The channel search will start and end automatically.

5   Select the **Hour, min** or **am/pm** by pressing the ◀ or ▶ button.
   Set the **Hour, min** or **am/pm** by pressing the ▲ or ▼ button.
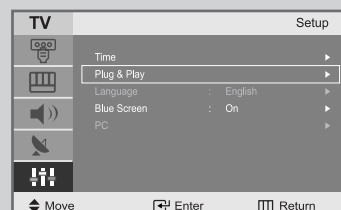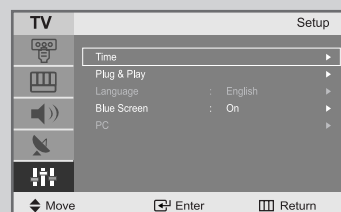   (Refer to "**Setting the Clock**" on page **36**)

6   Press the **MENU** button to confirm your setting.

   Result: The message **Enjoy your viewing** is displayed, and then the channel which has been stored will be activated.

# Plug & Play

If you want to reset this feature...

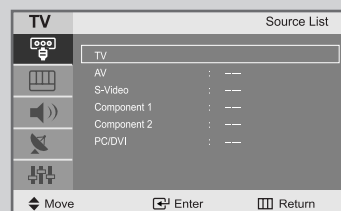|	
1	Press the **MENU** button.
	<u>Result</u>: The main menu is displayed.
2	Press the ▲ or ▼ button to select the **Setup**.
	<u>Result</u>: The options available in the **Setup** group are displayed.
3	Press the **ENTER** button.
4	Press the ▲ or ▼ button to select the **Plug & Play**. Press the **ENTER** button.
	<u>Result</u>: The message **Plug & Play** is displayed.
5	For further details on how to set, refer to the previous page.

TV		Setup
	Time	▶
	Plug & Play	▶
	Language	: English ▶
	Blue Screen	: On ▶
	PC	▶
◆ Move	⏎ Enter	▥ Return

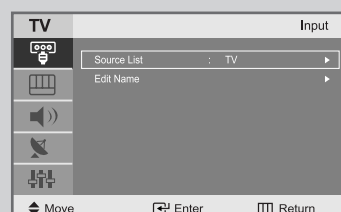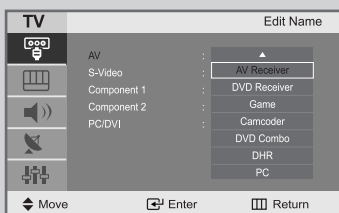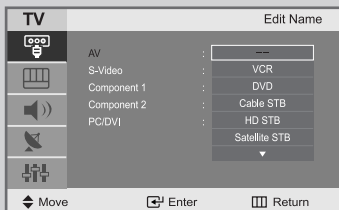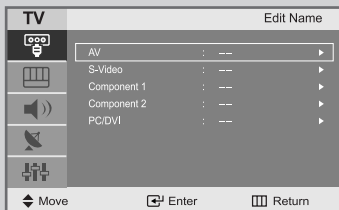| TV		Setup
	Time	▶
	Plug & Play	▶
	Language	: English ▶
	Blue Screen	: On ▶
	PC	▶
◆ Move	⏎ Enter	▥ Return

Plug & Play

Selecting TV Mode or an Input Source

You can choose TV mode or change to an input source connected to the TV set. Use this button to choose an input source that you would like to watch.

1	Press the **MENU** button.
	<u>Result</u>: The main menu is displayed.
2	Press the ▲ or ▼ button to select the **Input**.
	<u>Result</u>: The options available in the **Input** group are displayed.
3	Press the **ENTER** button.
4	Press the **ENTER** button to select the **Source List.**
	<u>Result</u>: The **Source List** is selected.
5	Press the ▲ or ▼ button to move to the input source that you wish to choose. Press the **ENTER** button.
	<u>Result</u>: The input source changes to the one you have chosen.

TV		Input
	Source List	: TV ▶
	Edit Name	▶
◆ Move	⏎ Enter	▥ Return

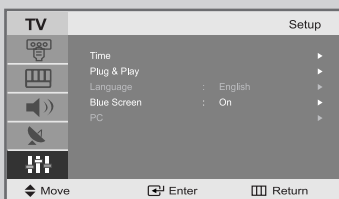| TV		Source List
	TV	
	AV	: ───
	S-Video	: ───
	Component 1	: ───
	Component 2	: ───
	PC/DVI	: ───
◆ Move	⏎ Enter	▥ Return

Editing an Input Source Name

Entering the names of the input source devices connected to the input ports on the TV set allows you to find and choose an input source that you would like to watch in a quick and convenient manner.

TV   Input

- Source List   :   TV   ▶
- Edit Name   ▶

◆ Move   ↵ Enter   ▥ Return

TV   Input

- Source List   :   TV   ▶
- Edit Name   ▶

◆ Move   ↵ Enter   ▥ Return

TV   Edit Name

- AV   :   ---   ▶
- S-Video   :   ---   ▶
- Component 1   :   ---   ▶
- Component 2   :   ---   ▶
- PC/DVI   :   ---   ▶

◆ Move   ↵ Enter   ▥ Return

TV   Edit Name

- AV   :   ---
- S-Video   :   VCR
- Component 1   :   DVD
- Component 2   :   Cable STB
- PC/DVI   :   HD STB
-                  Satellite STB
-                  ▼

◆ Move   ↵ Enter   ▥ Return

TV   Edit Name

- AV   :   ▲
- S-Video   :   AV Receiver
- Component 1   :   DVD Receiver
- Component 2   :   Game
- PC/DVI   :   Camcoder
-                  DVD Combo
-                  DHR
-                  PC

◆ Move   ↵ Enter   ▥ Return

1   Press the **MENU** button.

     <u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Input**.

     <u>Result</u>:   The options available in the **Input** group are displayed.

3   Press the **ENTER** ↵ button.

4   Press the ▲ or ▼ button to select the **Edit Name**.
          Press the **ENTER** ↵ button.

5   Press the ▲ or ▼ button to move to the input source that you wish to edit.
          Press the **ENTER** ↵ button.

     <u>Result</u>:   The following options are available:
                     AV - S-Video - Component 1 - Component 2 - PC/DVI

6   Select the required device by pressing the ▲ or ▼ repeatedly.

     <u>Result</u>:   The following options are available:
                     ---- - VCR - DVD - Cable STB - HD STB - Satellite STB - AV Receiver - DVD Receiver - Game - Camcorder - DVD Combo - DHR - PC

7   When you are satisfied with your choice, press the **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

Choosing Your Language

TV   Setup

- Time   ▶
- Plug & Play   ▶
- Language   :   English   ▶
- Blue Screen   :   On   ▶
- PC   ▶

◆ Move   ↵ Enter   ▥ Return

The available language for on-screen menu and indicators in this TV is only English.
When you select the Setup menu, the Language is set to English and you cannot select the Language.

Storing Channels Automatically

You can scan for the frequency ranges available to you (and availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However you can sort numbers manually and clear any channels you do not wish to watch.

1   Press the **MENU** button.

    <u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Channel**.

    <u>Result</u>:   The options available in the **Channel** group are displayed.

3   Press the **ENTER** button.

4   Press the ▲ or ▼ button to select **Auto Store**.
    Press the **ENTER** button.

    <u>Result</u>:   The **Auto store** menu is displayed with the **Start** selected.

5   Press the **ENTER** button to search the channels.
    The sub menu is changed from **Start** to **Stop** with channel search started.

    <u>Result</u>:   The search will end automatically.
             Channels are sorted and stored in an order which reflects their position in the frequency range (with lowest first and highest last). The programme originally selected is then displayed.

   ➤ To return to the previous menu, press ◄ or ► button to select **Return** and then press the **ENTER** button.

   ➤ To stop the search before it has finished, press the **ENTER** button to search the channels.

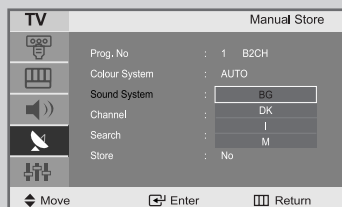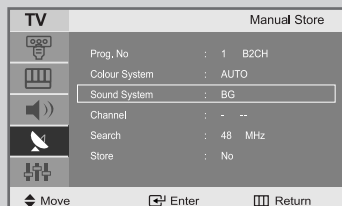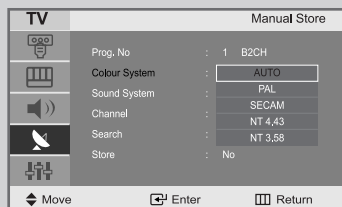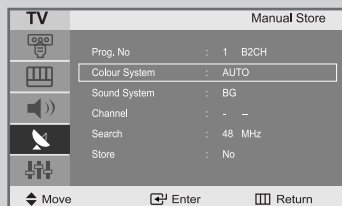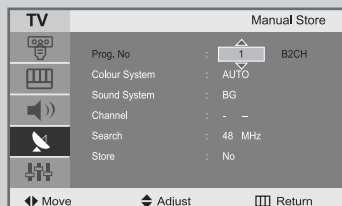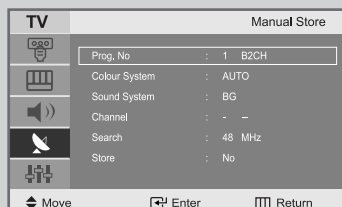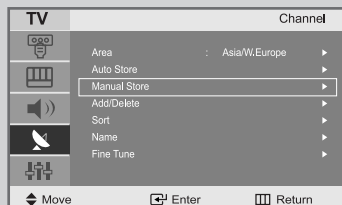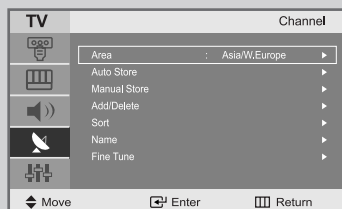**6**   After **Auto Store** proceeds, **Sort** menu appears automatically.

   ➤ Sort them in the order required (refer to page 21)

7   When the channels have been stored, you can:
    ◆ Add or delete the channels (refer to page 20)
    ◆ Assign a name to the stored channels (refer to page 22)
    ◆ Fine tune channel reception if necessary (refer to page 23)

TV   Channel

Area   :   Asia/W,Europe   ►
Auto Store   ►
Manual Store   ►
Add/Delete   ►
Sort   ►
Name   ►
Fine Tune   ►

◆ Move   ⏎ Enter   ▥ Return

TV   Channel

Area   :   Asia/W,Europe   ►
Auto Store   ►
Manual Store   ►
Add/Delete   ►
Sort   ►
Name   ►
Fine Tune   ►

◆ Move   ⏎ Enter   ▥ Return

Auto Store

48 MHz   P 1   B2CH
0   %
Start   Return

◄► Move   ⏎ Enter   ▥ Return

Auto Store

126 MHz   P 1   B2CH
10   %
Stop   Return

◄► Move   ⏎ Enter   ▥ Return

Storing Channels Manually

TV	Channel
Area	: Asia/W.Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move   ⏎ Enter   ▥ Return

TV	Channel
Area	: Asia/W.Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move   ⏎ Enter   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
Sound System	: BG
Channel	: - --
Search	: 48 MHz
Store	: No

◆ Move   ⏎ Enter   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
Sound System	: BG
Channel	: - --
Search	: 48 MHz
Store	: No

◀▶ Move   ◆ Adjust   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
Sound System	: BG
Channel	: - --
Search	: 48 MHz
Store	: No

◆ Move   ⏎ Enter   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
	PAL
Sound System	: SECAM
Channel	: NT 4.43
Search	: NT 3.58
Store	: No

◆ Move   ⏎ Enter   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
Sound System	: BG
Channel	: - --
Search	: 48 MHz
Store	: No

◆ Move   ⏎ Enter   ▥ Return

TV	Manual Store
Prog. No	: 1 B2CH
Colour System	: AUTO
Sound System	: BG
	DK
Channel	: I
Search	: M
Store	: No

◆ Move   ⏎ Enter   ▥ Return

You can store up to 100 channels, including those received via cable networks. When storing channels manually, you can choose:

- ◆ *Whether or not to store each of the channels found.*
- ◆ *The programme number of each stored channel which you wish to identify.*

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Channel**.

Result: The options available in the **Channel** group are displayed.

3 Press the **ENTER** ⏎ button.

4 Press the ▲ or ▼ button to select the **Manual Store**.
Press the **ENTER** ⏎ button.

Result: The options available in the **Manual Store** group are displayed with the **Prog. No** selected.

5 Press the **ENTER** ⏎ button again.
To assign a programme number to a channel, find the correct number by pressing the ▲ or ▼ button and then press the **ENTER** ⏎ button.

6 Press the ▲ or ▼ button to select **Colour System**.
Press the **ENTER** ⏎ button.
Select the **Colour System** required by pressing the ▲ or ▼ button repeatedly and then press the **ENTER** ⏎ button.

Result: The colour standards are displayed in the following order:
AUTO - PAL - SECAM - NT 4.43 - NT 3.58

7 Press the ▲ or ▼ button to select **Sound System**.
Press the **ENTER** ⏎ button.
Select the **Sound System** required by pressing the ▲ or ▼ button repeatedly and then press the **ENTER** ⏎ button.

Result: The sound standards are displayed in the following order:
BG - DK - I - M

8 For all the channels to move to the required channel numbers, repeat steps **5** to **6** after selecting **Prog. No** by pressing the ▲ or ▼ button.
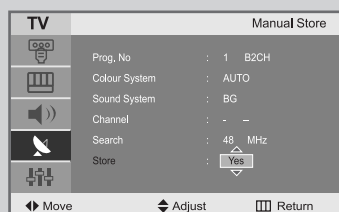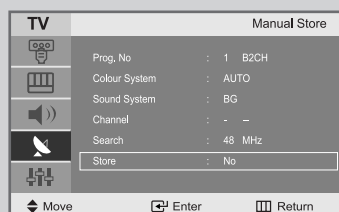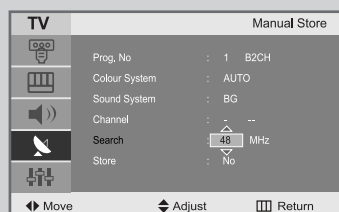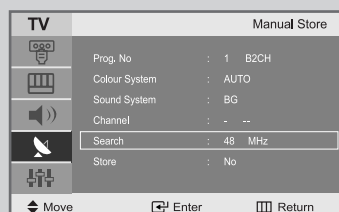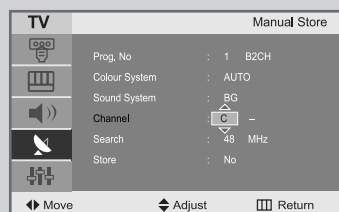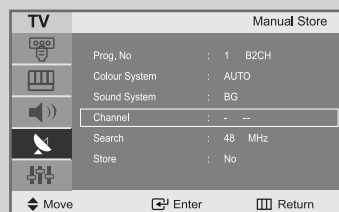
➤ You can also set **Prog.No** by pressing number button on the remote control.
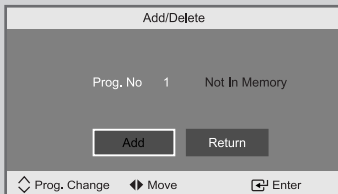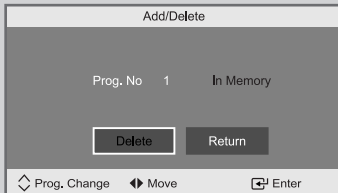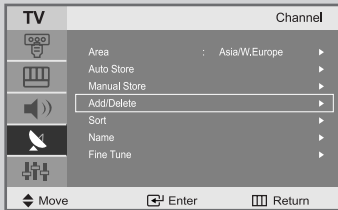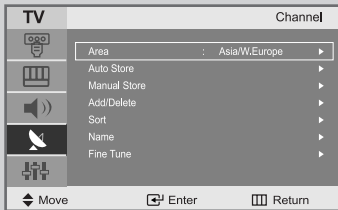
Storing Channels Manually

9   If you know the channel number to be stored,

◆   Press the ▲ or ▼ button to select the **Channel**.
     Press the **ENTER** ⊕ button.
◆   Select **C** (Air channel) or **S** (Cable channel) by pressing the
     ▲ or ▼ button and then press the **ENTER** ⊕ button.
◆   Select the required number by pressing the ▲ or ▼ button
     and then press the **ENTER** ⊕ button.

➤   If there is normal sound or no sound, re-select the
     sound system required.

➤   You can also set **Channel** by pressing number buttons on the
     remote control.

10 If you do not know the channel numbers, press the ▲ or ▼ button
       to select **Search**.
       Press the **ENTER** ⊕ button.
       Start the **Search** by pressing the ▲ or ▼ button.
       Press the **ENTER** ⊕ button.

       Result: The tuner scans the frequency range until the first channel
                 or the channel that you selected is received on your screen.

11 Press the ▲ or ▼ button to select **Store**.
       Press the **ENTER** ⊕ button.
       Select **YES** by pressing the ▲ or ▼ button.
       Press the **ENTER** ⊕ button.

       Result: The channel and associated programme number are
                 stored.

12 Repeat steps **8** to **10** for each channel to be stored.

☞ *Channel mode*

◆   **P** (Programme mode): When tuning is completed, the
     broadcasting stations in your area will have been assigned to
     position numbers from P00 to P99. You can select a channel
     by entering the position number in this mode.
◆   **C** (Real channel mode): You can select a channel by entering
     the assigned number to each broadcast station in this mode.
◆   **S** (Cable channel mode): You can select a channel by entering
   the assigned number to each cable channel in this mode.

Editing the Channels

TV	Channel
Area	: Asia/W.Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move　　　↵ Enter　　　▥ Return

TV	Channel
Area	: Asia/W.Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move　　　↵ Enter　　　▥ Return

Add/Delete

Prog. No　1　　In Memory

[Delete]　　[Return]

◇ Prog. Change　◀▶ Move　　　↵ Enter

Add/Delete

Prog. No　1　　Not In Memory

[Add]　　[Return]

◇ Prog. Change　◀▶ Move　　　↵ Enter

You can exclude any channels of your choice from the channels you have scanned. When you scan through the stored channels, those you have chosen to skip are not displayed.

All channels that you do not specifically choose to skip are displayed during scanning.

1　Press the **MENU** button.

　　Result:　The main menu is displayed.

2　Press the ▲ or ▼ button to select the **Channel**.

　　Result:　The options available in the **Channel** group are displayed.

3　Press the **ENTER**↵ button.

4　Press the ▲ or ▼ button to select **Add/Delete**.
　　Press the **ENTER**↵ button.

　　Result:　The state of the current channel is displayed.

5　Press the **P**⌃ or **P**⌄ button to select the channel that you wish to **Add** or **Delete**.

　　Result:　If the channel that you wish to edit is not in the memory, **Add** is selected and displayed.
　　　　　　Otherwise, if the channel that you wish to edit is in the memory, **Delete** is selected and displayed.

6　Press the **ENTER**↵ button to **Add** or **Delete** the channel.

7　To return to the previous menu, select **Return** by pressing the ◀ or ▶ button and then press the **ENTER**↵ button.

8　Repeat steps **5** to **6** for each channel to be added or deleted.

Sorting the Stored Channels

You can exchange the numbers of two channels, in order to:

◆ *Modify the numeric order in which the channels have been automatically stored.*

◆ *Assign easily remembered numbers to the channels that you watch most often.*

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Channel**.

Result: The options available in the **Channel** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select **Sort**.
Press the **ENTER** button.

Result: The current **Prog. No, Channel** and **Name** are displayed.

5 Select the channel number that you wish to change by pressing the ▲ or ▼ button repeatedly.
Press the **ENTER** button.

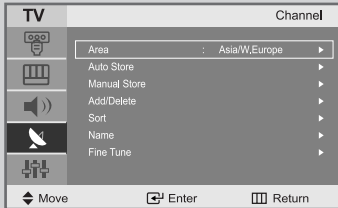Result: The selected **Channel number** and **Name** are moved to the right side.

6 Press the ▲ or ▼ button to move to the position which you would like to change and then press the **ENTER** button.

Result: The selected channel is exchanged with the one previously stored to the chosen number.

7 Repeat steps **5** to **6** for another channel to be sorted.

TV		Channel
	Area	: Asia/W.Europe ▶
	Auto Store	▶
	Manual Store	▶
	Add/Delete	▶
	Sort	▶
	Name	▶
	Fine Tune	▶
◆ Move	🖰 Enter	▥ Return

TV		Channel
	Area	: Asia/W.Europe ▶
	Auto Store	▶
	Manual Store	▶
	Add/Delete	▶
	Sort	▶
	Name	▶
	Fine Tune	▶
◆ Move	🖰 Enter	▥ Return

TV			Sort
	Prog. No	Channel	Name
	P 1	C 2	B2CH ▶
	P 2	C 83	C4
	P 3	C 80	R5
	P 4	C 5	IV04
	P 5	C 7	AUT8
◆ Move	🖰 Enter		▥ Return

TV			Sort
	Prog. No	Channel	Name
			◀ C 2 B2CH
	P 2	C 83	C4
	P 3	C 80	R5
	P 4	C 5	IV04
	P 5	C 7	AUT8
◆ Move	🖰 Enter		▥ Return

Giving Channels Names

TV	Channel
Area	: Asia/W,Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move   ↵ Enter   ▥ Return

TV	Channel
Area	: Asia/W,Europe ▶
Auto Store	▶
Manual Store	▶
Add/Delete	▶
Sort	▶
Name	▶
Fine Tune	▶

◆ Move   ↵ Enter   ▥ Return

TV	Name

Prog. No	Channel	Name
P 1	C 2	B2CH
P 2	C 83	C4
P 3	C 80	R5
P 4	C 5	IV04
P 5	C 7	AUT8

◆ Move   ↵ Enter   ▥ Return

TV	Name

Prog. No	Channel	Name
P 1	C 2	B 2 C H
P 2	C 83	C4
P 3	C 80	R5
P 4	C 5	IV04
P 5	C 7	AUT8

◆ Move   ↵ Enter   ▥ Return

If channel name information is broadcast when you store the channels either manually or automatically, the names are assigned to the channels directly. You can however change these names or assign new names as required.

1   Press the **MENU** button.

     <u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Channel**.

     <u>Result</u>:   The options available in the **Channel** group are displayed.

3   Press the **ENTER** ↵ button.

4   Press the ▲ or ▼ button to select the **Name**.
     Press the **ENTER** ↵ button.

     <u>Result</u>:   The current **Prog. No, Channel** and **Name** are displayed.

5   If necessary, select the channel to be assigned to a new name by pressing the ▲ or ▼ button.
     Press the **ENTER** ↵ button.

     <u>Result</u>:   The selection bar is displayed around the name box.

6

To...	Then...
Select a letter, number or symbol	Press the ▲ or ▼ button
Move on to the next letter	Press the ▶ button
Move back to the previous letter	Press the ◀ button
Confirm the name	Press the **ENTER** ↵ button

     ➤ The characters available are :
        ◆ Letters of the alphabet (A~Z)
        ◆ Numbers (0~9)
        ◆ Special characters (space, _, -, *)

7   Repeat steps **1** to **6** for each channel to be assigned to a new name.

8   When you are satisfied with the setting, press the **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

Fine Tuning Channel Reception

If the reception is clear, you do not have to fine-tune the channel, as this is done automatically during the search and store operation. If however, the signal is weak or distorted, you may have to fine-tune the channel manually.

➤ Select the channel that you want to fine tune.

1 Press the **MENU** button.
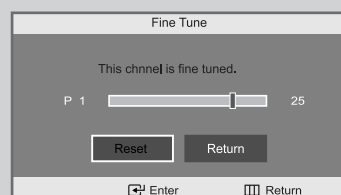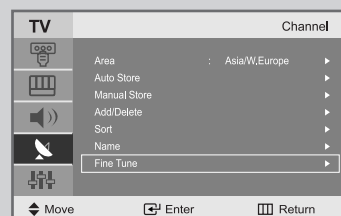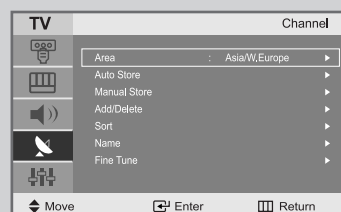
  <u>Result</u>: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Channel**.

  <u>Result</u>: The options available in the **Channel** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select the **Fine Tune**.
  Press the **ENTER** button.

5 Press ◄ or ► button until the setting obtains a sharp
  and clear picture and good sound quality.
  To store the setting, press the **ENTER** button.

6 To reset the fine tuning, select **Reset** by pressing the ▲ or ▼ button
  and then press the **ENTER** button.
  To return to the previous menu, select **Return** by pressing the
  ◄ or ► button and press the **ENTER** button.

7 When you are satisfied with the setting, press the **EXIT** button to
  return to nomal viewing.

TV	Channel
Area	: Asia/W,Europe ►
Auto Store	►
Manual Store	►
Add/Delete	►
Sort	►
Name	►
Fine Tune	►

◆ Move   ↵ Enter   ▥ Return

TV	Channel
Area	: Asia/W,Europe ►
Auto Store	►
Manual Store	►
Add/Delete	►
Sort	►
Name	►
Fine Tune	►

◆ Move   ↵ Enter   ▥ Return

Fine Tune

P 1   ━━━━━┃━━━━━   0

Reset   Return

◀▶ Adjust   ↵ Store

Fine Tune

This chnnel is fine tuned.

P 1   ━━━━━┃━━━━━   25

Reset   Return

◀▶ Adjust   ↵ Store

Fine Tune

This chnnel is fine tuned.

P 1   ━━━━━┃━━━━━   25

Reset   Return

↵ Enter   ▥ Return

Changing the Picture Standard
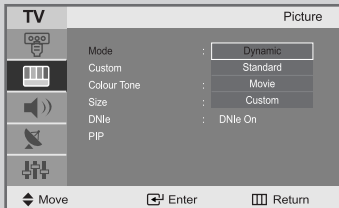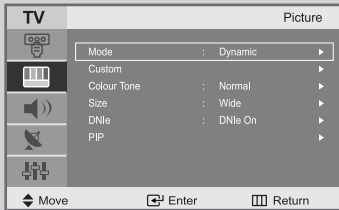
TV		Picture
Mode	:	Dynamic ▶
Custom		▶
Colour Tone	:	Normal ▶
Size	:	Wide ▶
DNIe	:	DNIe On ▶
PIP		▶
◆ Move	↵ Enter	☰ Return

TV		Picture
Mode	:	Dynamic
Custom		Standard
Colour Tone	:	Movie
Size	:	Custom
DNIe	:	DNIe On
PIP		
◆ Move	↵ Enter	☰ Return

Dynamic

You can select the type of picture which best corresponds to your viewing requirements.

1   Press the **MENU** button.

<u>Result</u>:   The main menu is displayed.

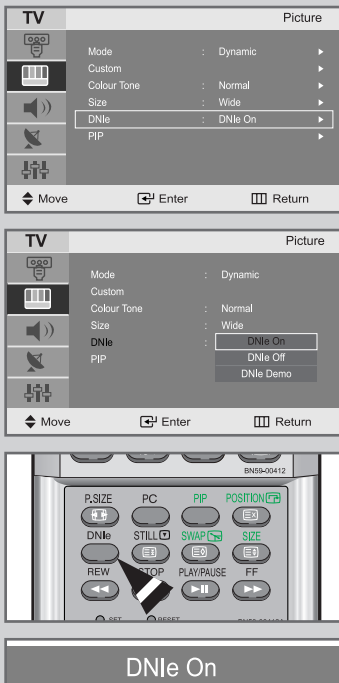**2**   Press the ▲ or ▼ button to select the **Picture**.

<u>Result</u>:   The options available in the **Picture** group are displayed.

3   Press the **ENTER** ↵ button.

4   Press the **ENTER** ↵ button.

<u>Result</u>:   The **Mode** is selected.

5   Select the required picture effect by pressing the ▲ or ▼ button repeatedly.
        Press the **ENTER** ↵ button.

<u>Result</u>:   The following picture effects are available:
        Dynamic - Standard - Movie - Custom

➤   You can also set these options simply by pressing the
     P.MODE (Picture Mode) button.

Adjusting the Custom Picture

Your set has several settings which allow you to control picture quality.

1   Press the **MENU** button.

   Result: The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Picture**.

   Result: The options available in the **Picture** group are displayed.

3   Press the **ENTER** ⏎ button.

4   Press the ▲ or ▼ button to select the **Custom**.
   Press the **ENTER** ⏎ button.

5   Select the option (**Contrast**, **Brightness, Sharpness**, **Colour**)
   to be adjusted by pressing the ▲ or ▼ button.
   Press the **ENTER** ⏎ button.

   Result: The horizontal bar is displayed.

6   Press the ◄ or ► button to reach the required setting.

7   When you are satisfied with the setting, press the **MENU** button
   to return to the previous menu or press the **EXIT** button to return to
   normal viewing.

➢   If you make any changes to these settings,
   the picture standard is automatically switched to **Custom.**

TV		Picture
Mode	:	Dynamic ►
Custom		►
Colour Tone	:	Normal ►
Size	:	Wide ►
DNIe	:	DNIe On ►
PIP		►

◆ Move   ⏎ Enter   ⊞ Return

TV		Picture
Mode	:	Dynamic ►
Custom		►
Colour Tone	:	Normal ►
Size	:	Wide ►
DNIe	:	DNIe On ►
PIP		►

◆ Move   ⏎ Enter   ⊞ Return

TV	Custom
Contrast	90
Brightness	45
Sharpness	65
Colour	65

◆ Move   ⏎ Enter   ⊞ Return

Contrast   90

Adjusting the Screen Background Colour

TV	Picture
Mode	: Dynamic ▶
Custom	▶
Colour Tone	: Normal ▶
Size	: Wide ▶
DNIe	: DNIe On ▶
PIP	▶

◆ Move   ⏎ Enter   ▥ Return

TV	Picture
Mode	: Dynamic ▶
Custom	▶
Colour Tone	: Normal ▶
Size	: Wide ▶
DNIe	: DNIe On ▶
PIP	▶

◆ Move   ⏎ Enter   ▥ Return

TV	Picture
Mode	: Dynamic
Custom	
Colour Tone	: Cool 2
Size	: Cool 1
DNIe	: Normal
PIP	Warm 1
	Warm 2

◆ Move   ⏎ Enter   ▥ Return

You can change the screen background colour according to your preference.

1   Press the **MENU** button.

<u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Picture**.

<u>Result</u>:   The options available in the **Picture** group are displayed.

3   Press the **ENTER**⏎ button.

4   Press the ▲ or ▼ button to select the **Colour Tone**.
Press the **ENTER**⏎ button.

<u>Result</u>:   The following options are available:
Cool 2 - Cool 1 - Normal - Warm 1 - Warm 2

5   When you are satisfied with your choice, press the **EXIT** button to return to normal viewing.

DNIe (Digital Natural Image engine)

TV	Picture
Mode	: Dynamic ▶
Custom	▶
Colour Tone	: Normal ▶
Size	: Wide ▶
DNIe	: DNIe On ▶
PIP	▶

◆ Move   ⏎ Enter   ▥ Return

TV	Picture
Mode	: Dynamic
Custom	
Colour Tone	: Normal
Size	: Wide
DNIe	: DNIe On
PIP	DNIe Off
	DNIe Demo

◆ Move   ⏎ Enter   ▥ Return

BN59-00412

P.SIZE   PC   PIP   POSITION▣
DNIe   STILL▣   SWAP▣   SIZE
REW   STOP   PLAY/PAUSE   FF

DNIe On

Samsung's new technology brings you more detailed images with contrast and white enhancement. A new image compensation algorithm gives viewers brighter and clearer image.
DNIe technology will match every signal to your eye.

1   Press the **MENU** button.

<u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select **Picture**.

<u>Result</u>:   The options available in the **Picture** group are displayed.

3   Press the **ENTER**⏎ or ▶ button.

4   Press the ▲ or ▼ button to select **DNIe** and then press the **ENTER**⏎ or ▶ button.
Select the required option by pressing the ▲ or ▼ button.

<u>Result</u>:   The following options are available:
DNIe On - DNIe Off - DNIe Demo

➢   **DNIe On**   Improved picture mode as demonstrated by DNIe Demo is activated.

DNIe Off   The mode is deactivated and the screen returns to its original condition.

DNIe Demo The screen shows the improved image on the left-hand side and the original image on the right-hand side.

➢   You can also select these options by simply pressing the **DNIe** button on the remote control.

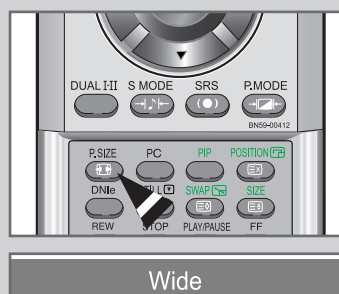**5**   When you are satisfied with your choice, press the **EXIT** button to return to normal viewing.
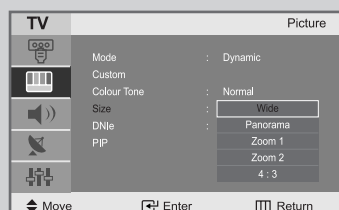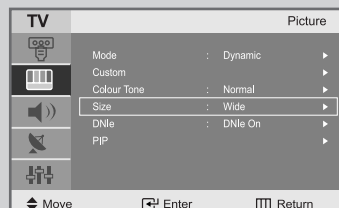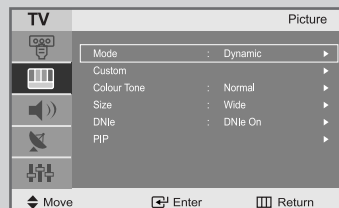
➢   This function doesn't work when source is in PC mode or PIP is set to ▭-▯.

Selecting the Picture Size

You can select the picture size which best corresponds to your viewing requirements.

1 Press the **MENU** button.

<u>Result</u>: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Picture**.

<u>Result</u>: The options available in the **Picture** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select the **Size**.
Press the **ENTER** button.

5 Select the required picture format by pressing the ▲ or ▼ button repeatedly.
Press the **ENTER** button.

<u>Result</u>: The following options are available:
Wide - Panorama - Zoom 1 - Zoom 2 - 4:3

➢ ◆ You can also set these options simply by pressing the **P.SIZE** (Picture SIZE) button.

◆ If you press **P.SIZE** button when PIP is in ▭ mode, PIP function will be cancelled and the picture size will be changed.

◆ If you press **P.SIZE** button when PIP is in ▭ - ▭ mode, the message "Not available" will display.

◆ In PC Mode, only Wide and 4:3 mode can be adjusted.

◆ In Zoom 1 or 2, use the ▲ or ▼ button to move the picture.

TV		Picture
Mode	:	Dynamic
Custom		
Colour Tone	:	Normal
Size	:	Wide
DNIe	:	DNIe On
PIP		
◆ Move	↵ Enter	▥ Return

TV		Picture
Mode	:	Dynamic
Custom		
Colour Tone	:	Normal
Size	:	Wide
DNIe	:	DNIe On
PIP		
◆ Move	↵ Enter	▥ Return

TV		Picture
Mode	:	Dynamic
Custom		
Colour Tone	:	Normal
Size	:	Wide
DNIe	:	Panorama
PIP		Zoom 1
		Zoom 2
		4 : 3
◆ Move	↵ Enter	▥ Return

Wide

Freezing the Current Picture

Press the "STILL" button on the remote control to freeze the picture on a given frame.
To return to normal viewing, press the "STILL" button again.
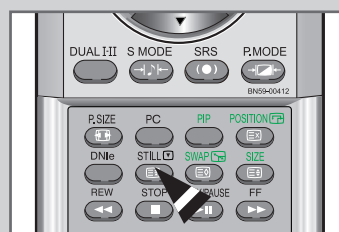
Viewing the Picture In Picture (PIP)
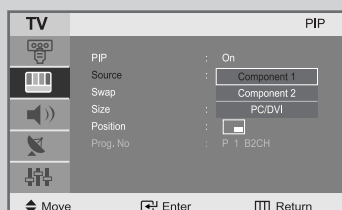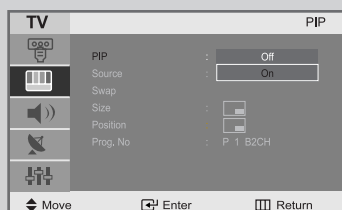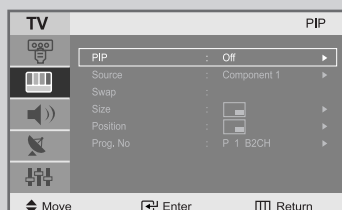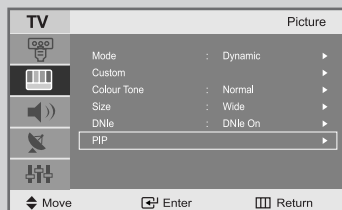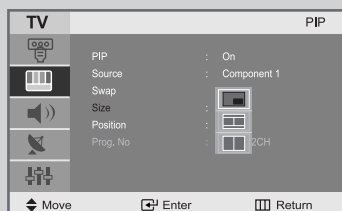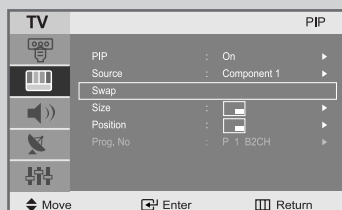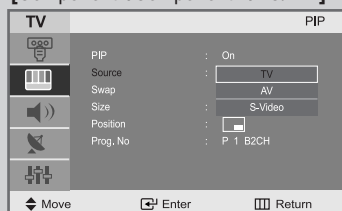
You can display a sub picture within the main picture of set programme or video input. In this way, you can watch the picture of set programme or vidio input from any connected equipment whiling watching the main picture.

1   Press the **MENU** button.

    Result: The main menu is displayed.

2   Press the ▲ or ▼ button to select **Picture**.

    Result: The options available in the **Picture** group are displayed.

3   Press the **ENTER** button.

4   Press the ▲ or ▼ button to select **PIP** and then press the **ENTER** button.

    Result: The options available in the **PIP** menu are displayed.

5   Press the **ENTER** button again.
    Select **On** by pressing the ▲ or ▼ button and then press the **ENTER** button.

6   Press the ▲ or ▼ button to select **Source** and press **ENTER** button. Select a source of the sub picture by pressing the ▲ or ▼ button and press the **ENTER** button.

    Result: The sources are displayed in the following order: When main picture is set to TV/AV/S-Video, only Component1/Component 2/PC/DVI can be selected and when main picture is set to Component1/Component 2/PC/DVI, TV/AV/S-Video can be selected.

7   Press the ▲ or ▼ button to select **Swap.**
    To interchange the main picture and the sub picture, select **Swap** option and press the **ENTER** button.

    Result: The main picture and the sub picture are interchanged.

8   Press the ▲ or ▼ button to select **Size** of sub picture and then press the **ENTER** button.
    Select a size of the sub picture by pressing the ▲ or ▼ button and then press the **ENTER** button.

    Result: The sizes are displayed in the following order.

        ▄ - ⬚ - ☐

[Component1/Component 2/PC/DVI]

Viewing the Picture In Picture (PIP)

9 Press the ▲ or ▼ button to select **Position** and then press the **ENTER**⏎ button.
Select the position of sub picture by pressing the ▲ or ▼ button and then press the **ENTER**⏎ button.

    <u>Result</u>:   You can move the sub picture.

➤   When the size of sub picture is set to
▢▢ - ▢▢ , this feature does not work.

10 Press the ▲ or ▼ button to select **prog.No** and then press the **ENTER**⏎ button.
You can select the channel that you want to view through sub picture by pressing the ▲ or ▼ button.

    <u>Result</u>:   The memorized **Prog.No** is displayed.

➤   **MAIN:Component 1/Component 2/PC/DVI, PIP:TV**

    "Prog.No" is inactive and not available in TV mode. However, they become active and available in Component 1/Component 2/PC/DVI mode.

11 To return to normal viewing, press the **EXIT** button.

➤   **Remote-control functions while "PIP" is "On":**

Features	Description
PIP	Used to operate ON/OFF function of PIP directly.
SWAP	Used to interchange the main picture and the sub picture.
	➤ When the main picture is in the video mode and the sub picture is in the set mode, you might not hear the sound of main picture when pressing the **SWAP** button after changing the sub picture channel. At this time, reselect the main picture channel.
POSITION	You also move the sub picture simply by pressing the **POSITION** button.
SIZE	Select a size of the sub picture by pressing the **SIZE** button.

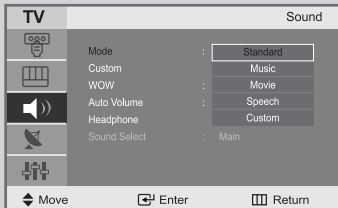➤   **PIP Settings**

O : PIP operates
X : PIP does not operate

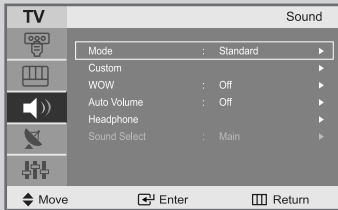| Main \ Sub	TV	AV	S-Video	Component 1	Component 2	PC/DVI
TV	X	X	X	O	O	O
AV	X	X	X	O	O	O
S-Video	X	X	X	O	O	O
Component 1	O	O	O	X	X	X
Component 2	O	O	O	X	X	X
PC/DVI	O	O	O	X	X	X

TV   PIP

PIP	: On
Source	: Component 1
Swap	
Size	
Position	:
Prog. No	

◆ Move   ⏎ Enter   ▥ Return

[Component1**/**Component 2**/**PC/DVI**]**

TV   PIP

PIP	: On
Source	: TV
Swap	
Size	:
Position	:
Prog. No	: P 1 B2CH

◆ Adjust   ⏎ Enter   ▥ Return
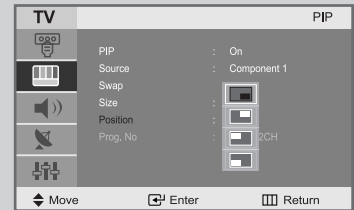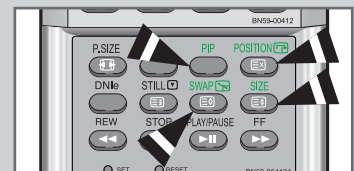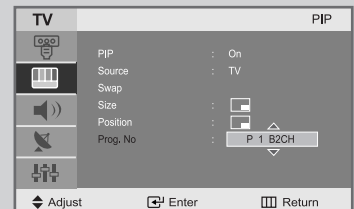
Changing the Sound Standard

TV	Sound
Mode	: Standard ▶
Custom	▶
WOW	: Off ▶
Auto Volume	: Off ▶
Headphone	▶
Sound Select	: Main ▶

◆ Move   ↵ Enter   ⊞ Return

TV	Sound
Mode	: Standard
Custom	Music
WOW	: Movie
Auto Volume	: Speech
Headphone	Custom
Sound Select	: Main

◆ Move   ↵ Enter   ⊞ Return

DUAL I-II   S MODE   SRS   P.MODE

BN59-00412

P.SIZE   PC   POSITION

DNIe   STILL   SWAP   SIZE

🔊)) **Standard**
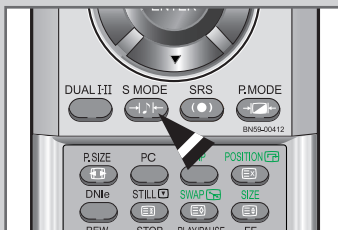
You can select the type of special sound effect to be used when watching a given broadcast.

1   Press the **MENU** button.

 Result: The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Sound**.

 Result: The options available in the **Sound** group are displayed.

3   Press the **ENTER** ↵ button.

4   Press the **ENTER** ↵ button.

 Result: The **Mode** is selected .

5   Select the required sound effect by pressing the ▲ or ▼ button repeatedly.
 Press the **ENTER** ↵ button.

 Result: The following sound effects are available:
   Standard - Music - Movie - Speech - Custom

➢   You can also set these options simply by pressing the
 **S.MODE** (Sound Mode) button.

Adjusting the Custom Sound

The sound settings can be adjusted to suit your personal preferences.

1   Press the **MENU** button.

Result: The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Sound**.

Result: The options available in the **Sound** group are displayed.

3   Press the **ENTER** button.

4   Press the ▲ or ▼ button to select the **Custom**.
Press the **ENTER** button.

5   Select the option (**Volume**, **L/R**, **100**, **300, 1K, 3K, 10K**) to
be adjusted by pressing the ◄ or ► button.
Press the **ENTER** button.

Result: The Vertical bar is activated.

6   Press the ▲ or ▼ button to reach the required setting.

7   When you are satisfied with the setting, press the **MENU** button
to return to the previous menu or press the **EXIT** button to return to
normal viewing.

➤   If you make any changes to these settings,
the Sound Mode is automatically switched to Custom.
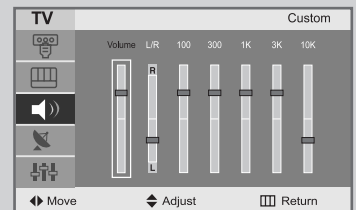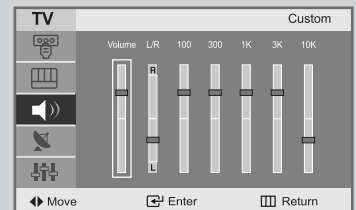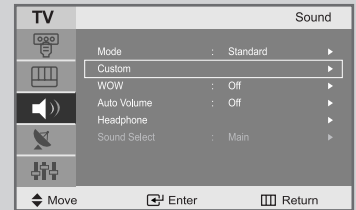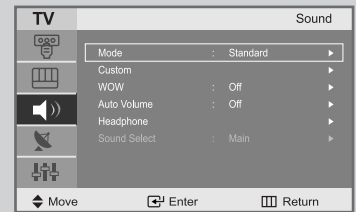
Selecting WOW Surround
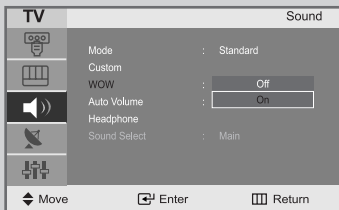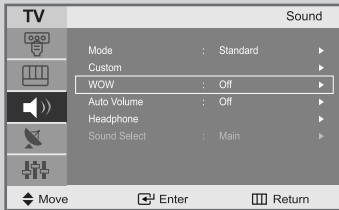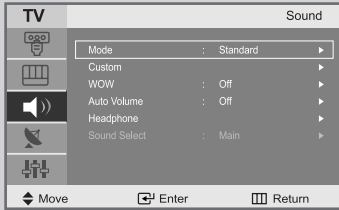
Select the Wow Surround feature to amplify the mid- to low-range sounds or create a surround sound effect.

1   Press the **MENU** button.

   <u>Result</u>:   The main menu is displayed.

2   Press the ▲ or ▼ button to select the **Sound**.

   <u>Result</u>:   The options available in the **Sound** group are displayed.

3   Press the **ENTER** ⏎ button.

4   Press the ▲ or ▼ buttons to select **WOW**.
   Press the **ENTER** ⏎ button.

5   Press the ▲ or ▼ button to select **On**.
   Press the **ENTER** ⏎ button.

➢   Select On/Off with **SRS** button on the remote control as well.

SRS ◉ **WOW**   is a trademark of SRS Labs,Inc. **WOW**
technology is incorporated under license from SRS labs, Inc.

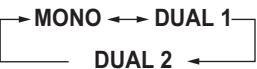# Selecting Auto Volume Control

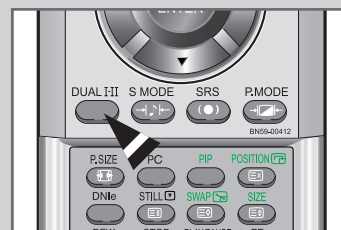*Reduces the differences in volume level between broadcasters.*

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Sound**.

Result: The options available in the **Sound** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select **Auto Volume**.
Press the **ENTER** button.

5 Press the ▲ or ▼ button to select **On**.
Press the **ENTER** button.

6 Press the **EXIT** button to return to normal viewing.

TV		Sound
Mode	:	Standard ▶
Custom		▶
WOW	:	Off ▶
Auto Volume	:	Off ▶
Headphone		▶
Sound Select	:	Main ▶

◆ Move   ◄┘ Enter   Ⅲ Return

TV		Sound
Mode	:	Standard ▶
Custom		▶
WOW	:	Off ▶
Auto Volume	:	Off ▶
Headphone		▶
Sound Select	:	Main ▶

◆ Move   ◄┘ Enter   Ⅲ Return

TV		Sound
Mode	:	Standard
Custom		
WOW	:	Off
Auto Volume	:	Off
Headphone		On
Sound Select	:	Main

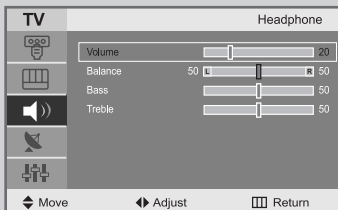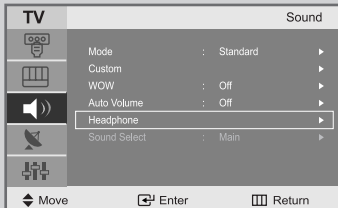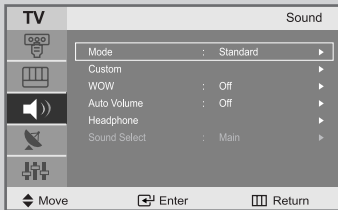◆ Move   ◄┘ Enter   Ⅲ Return
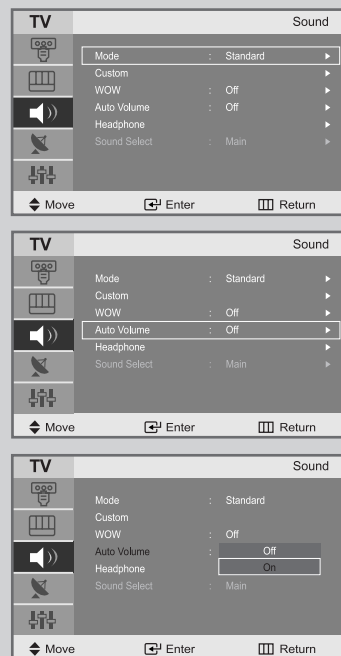
Selecting the Sound Mode

*You can set the sound mode by pressing the ″**DUAL I-II**″ button.*
When you press it, current sound mode is displayed on the screen.

	Audio Type	DUAL 1/2	Default
FM Stereo	Mono	**MONO**	Automatic change
	Stereo	**STEREO ◄► MONO**	
	Dual	**DUAL 1 ◄► DUAL 2**	DUAL 1
NICAM Stereo	Mono	**MONO**	Automatic change
	Stereo	**MONO ◄► STEREO**	
	Dual	┌► **MONO ◄► DUAL 1** ┐ **DUAL 2** ◄	DUAL 1

➢ ◆ If the receiving conditions deteriorate, listening will be easier if the mode is set to **Mono**.

◆ If the stereo signal is weak and automatic switching occurs, switch to **Mono**.

Adjusting Your Headphone Preferences

TV		Sound
	Mode	: Standard ▶
	Custom	▶
	WOW	: Off ▶
	Auto Volume	: Off ▶
	Headphone	▶
	Sound Select	: Main ▶
◆ Move	⏎ Enter	▥ Return

TV		Sound
	Mode	: Standard ▶
	Custom	▶
	WOW	: Off ▶
	Auto Volume	: Off ▶
	Headphone	▶
	Sound Select	: Main ▶
◆ Move	⏎ Enter	▥ Return

TV		Headphone
	Volume	20
	Balance 50 L	R 50
	Bass	50
	Treble	50
◆ Move	◀▶ Adjust	▥ Return

You can adjust the headphone settings to suit your preferences.
The following headphones settings are available:

◆ *Volume, Balance, Bass, Treble.*

---

1 Press the **MENU** button.

Result: The main menu is displayed.

---

2 Press the ▲ or ▼ button to select the **Sound**.

Result: The options available in the **Sound** group are displayed.

---

3 Press the **ENTER**⏎ button.

---

4 Press the ▲ or ▼ button to select **Headphone**.
Press the **ENTER**⏎ button.

---

5 Select the option (**Volume**, **Balance**, **Bass**, **Treble**)
to be adjusted by pressing the ▲ or ▼ button.

Result: The horizontal bar is activated.

---

6 Press the ◀ or ▶ button to reach the required setting.

---

7 When you are satisfied with the setting, press the **MENU** button
to return to the previous menu or press the **EXIT** button to return to
normal viewing.

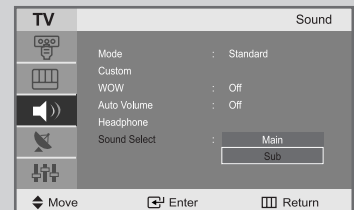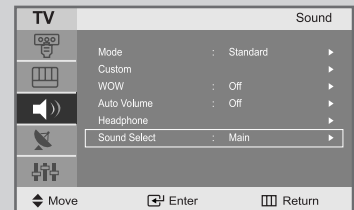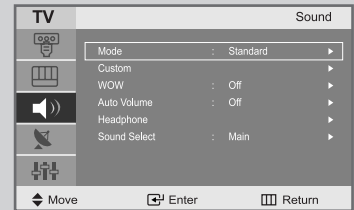---

Selecting a Sound Mode for the Sub-Screen

1 Press the **MENU** button.

  <u>Result</u>: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Sound**.

  <u>Result</u>: The options available in the **Sound** group are displayed.
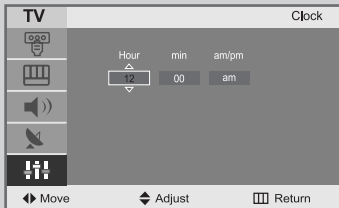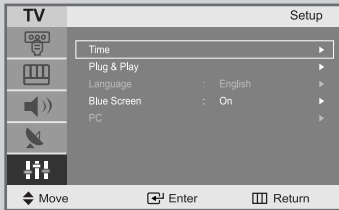
3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select the **Sound Select**.
  Press the **ENTER** button.

5 Press the ▲ or ▼ button to select **Sub**.
  Press the **ENTER** button.

➤ You can use the sub-screen sound mode feature only when the PIP is set to on.

TV		Sound
Mode	:	Standard ▶
Custom		▶
WOW	:	Off ▶
Auto Volume	:	Off ▶
Headphone		▶
Sound Select	:	Main ▶

◆ Move ⏎ Enter ▥ Return

TV		Sound
Mode	:	Standard ▶
Custom		▶
WOW	:	Off ▶
Auto Volume	:	Off ▶
Headphone		▶
Sound Select	:	Main ▶

◆ Move ⏎ Enter ▥ Return

TV		Sound
Mode	:	Standard
Custom		
WOW	:	Off
Auto Volume	:	Off
Headphone		
Sound Select	:	Main
		Sub

◆ Move ⏎ Enter ▥ Return

Setting the Clock

TV	Setup
Time	▶
Plug & Play	▶
Language	: English ▶
Blue Screen	: On ▶
PC	▶
◆ Move	↵ Enter ▥ Return

TV	Time
Clock	: – : – am ▶
Sleep Timer	: Off ▶
On Timer	: Off ▶
Off Timer	: Off ▶
◆ Move	↵ Enter ▥ Return

TV	Clock
Hour min am/pm	
12 00 am	
◆▶ Move	◆ Adjust ▥ Return

You can set the TV'S clock so that the current time is displayed when you press the "INFO" button. You must also set the time if you wish to use the automatic On/Off timers. (Refer to page 39)

➤ If you disconnect the power cord, you have to set the clock again.

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** button.

4 Press the **ENTER** button.

Result: The **Time** is selected.

5 Press the **ENTER** button.
Press the ▲ or ▼ button to set the **Hour**.

6 Press the ◄ or ► button to move to **min**.
Press the ▲ or ▼ button to set the **min**.

7 Press the ◄ or ► button to move **am/pm**.
Press the ▲ or ▼ button to set the **am/pm**.
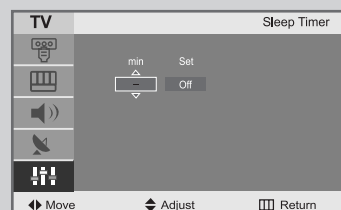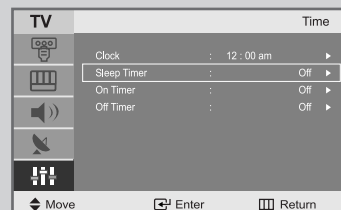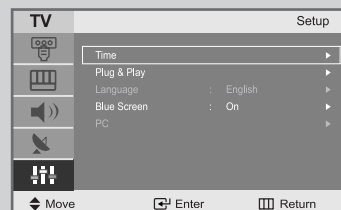
8 Press the **ENTER** button.

Result: The clock is set.

➤ You can also set the time using the numeric buttons on the remote.

Switching Off Automatically

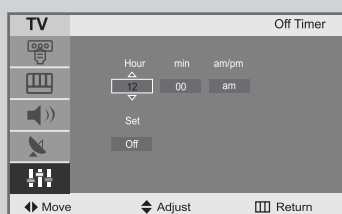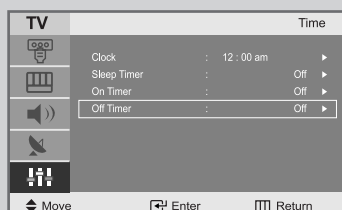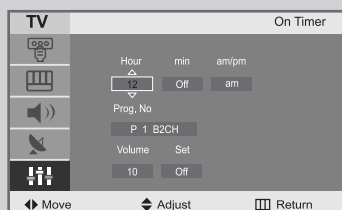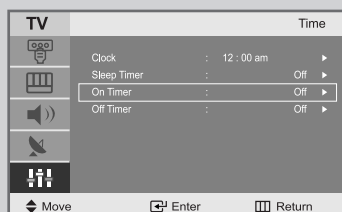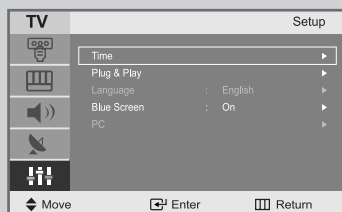*You can select a time period of between 30 and 180 minutes after which your set automatically switches off.*

1   Press the **MENU** button.

   Result: The main menu is displayed.

2   Press the ▲ or ▼ button to select **Setup**.

   Result: The options available in the **Setup** group are displayed.

3   Press the **ENTER** button.

4   Press the **ENTER** button.

   Result: The **Time** is selected.

5   Press the ▲ or ▼ button to select the **Sleep Timer**.
   Press the **ENTER** button.

6   Press the ▲ or ▼ button repeatedly and cycle through the preset time intervals (--, 30, 60, 90, 120, 150, 180).

   Result: The TV automatically switches to standby mode when the timer reaches 0.

7   To cancel the sleep timer function, select **Set** by pressing the ◄ or ► button and then select "**Off**" by pressing the ▲ or ▼ button. Press the **ENTER** button.

8   Press the **EXIT** button to return to normal viewing.

➤   You can also select this feature by simply pressing the "**SLEEP**" button.
   If the sleep timer is already set, the screen displays the remaining time and then your set will be switched **Off**.
   If the sleep timer is not yet set, **Off** is displayed.
   ◆ Off • 30 • 60 • 90 • 120 • 150 • 180

TV		Setup
Time		►
Plug & Play		►
Language	: English	►
Blue Screen	: On	►
PC		►

♦ Move   Enter   Return

TV		Time
Clock	: 12 : 00 am	►
Sleep Timer	: Off	►
On Timer	: Off	►
Off Timer	: Off	►

♦ Move   Enter   Return

TV   Sleep Timer

min   Set
△
---   Off
▽

◄► Move   ♦ Adjust   Return

POWER

TV   STB   VCR CABLE DVD

TTX/MIX   SLEEP   SELECT

1   2   3

30   min

Switching the Television On and Off Automatically

TV		Setup
	Time	▶
	Plug & Play	▶
	Language	: English ▶
	Blue Screen	: On ▶
	PC	▶
◆ Move	↵ Enter	⊞ Return

TV		Time
	Clock	: 12 : 00 am ▶
	Sleep Timer	: Off ▶
	On Timer	: Off ▶
	Off Timer	: Off ▶
◆ Move	↵ Enter	⊞ Return

TV		On Timer
	Hour min am/pm	
	12 Off am	
	Prog. No	
	P 1 B2CH	
	Volume Set	
	10 Off	
◀▶ Move	◆ Adjust	⊞ Return

TV		Time
	Clock	: 12 : 00 am ▶
	Sleep Timer	: Off ▶
	On Timer	: Off ▶
	Off Timer	: Off ▶
◆ Move	↵ Enter	⊞ Return

TV		Off Timer
	Hour min am/pm	
	12 00 am	
	Set	
	Off	
◀▶ Move	◆ Adjust	⊞ Return

You can set the On/Off timers so that the set will:

◆ *Switch on automatically and tune to the channel of your choice at the time you select.*

◆ *Switch off automatically at the time you select.*

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** ↵ button.

4 Press the **ENTER** ↵ button.

Result: The **Time** menu are displayed with **Clock** selected.

5 Press the ▲ or ▼ button to select the **On Timer**.
Press the **ENTER** ↵ button.

Result: The **On Timer** menu is displayed.

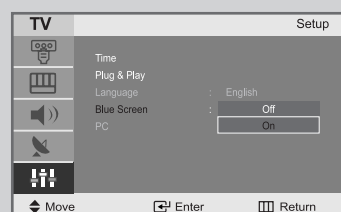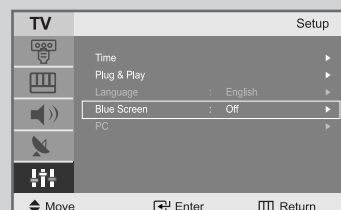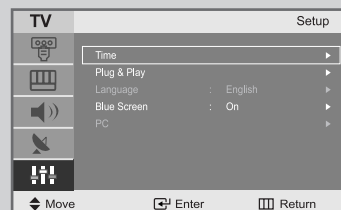| To...	Press the...
Move to **Hour, min, am/pm, Prog. No** and **Volume**	◀ or ▶ button
Set **Hour, min, am/pm, Prog. No** and **Volume** level	▲ or ▼ button
Move to **Set**	◀ or ▶ button
Select **On** to enable above setting	▲ or ▼ button

6 Press the ▲ or ▼ button to select **Off Timer**.
In the same way, set the time at which you wish the set to be switched off automatically.

Setting the Blue Screen Mode

If no signal is being received or the signal is very weak, a blue screen automatically replaces the noisy picture background.
If you wish to continue viewing the poor picture, you must set the "Blue Screen" mode to "Off".

1	Press the **MENU** button.
	Result: The main menu is displayed.
2	Press the ▲ or ▼ button to select **Setup**.
	Result: The options available in the **Setup** group are displayed.
3	Press the **ENTER** button.
4	Press the ▲ or ▼ button to select **Blue Screen**. Press the **ENTER** button.
5	Press the ▲ or ▼ button to select **On**.
6	Press the **EXIT** button to return to normal viewing.

TV	Setup
Time	▶
Plug & Play	▶
Language	: English ▶
Blue Screen	: On ▶
PC	▶

◆ Move   ↵ Enter   ⊞ Return

TV	Setup
Time	▶
Plug & Play	▶
Language	: English ▶
Blue Screen	: Off ▶
PC	▶

◆ Move   ↵ Enter   ⊞ Return

TV	Setup
Time	
Plug & Play	
Language	: English
Blue Screen	: Off
PC	On

◆ Move   ↵ Enter   ⊞ Return

Displaying Information

You can view the setting status of the selected source by pressing the "INFO" button on the remote control.
The information displayed varies according to the selected source.

|	
P 1 B2CH	
Mono	
Picture	Dynamic
Sound	Custom
WOW	Off
Clock	12:00 am
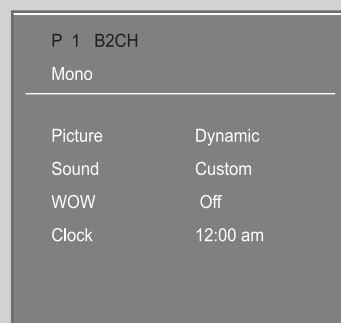
# Setting Up Your PC Software (Based on Windows XP)

The Windows display-settings for a typical computer are shown below. The actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. However, even if your actual screens look different, the same basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or Samsung Dealer.)

1 First, click on **"Control Panel"** on the Windows start menu.
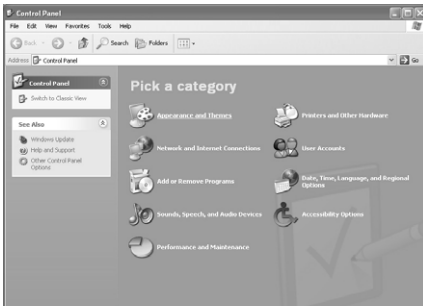
2 When the control panel window appears, click on "**Appearance and Themes**" and a display dialog-box will appear.
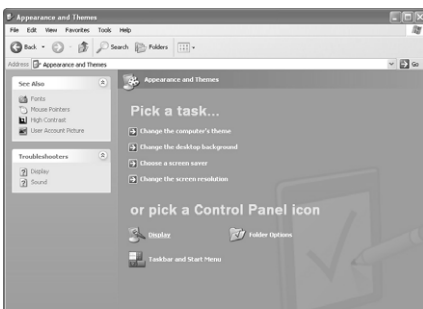
3 When the control panel window appears, click on "**Display**" and a display dialog-box will appear.

4 Navigate to the "**Settings**" tab on the display dialog-box.

The correct size setting (resolution)
- 1280 X 720 pixels

If a vertical-frequency option exists on your display settings dialog box, the correct value is "**60**" or "**60 Hz**". Otherwise, just click "**OK**" and exit the dialog box.
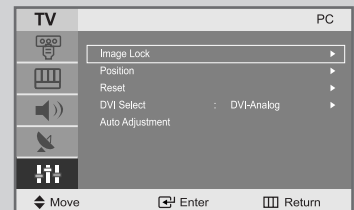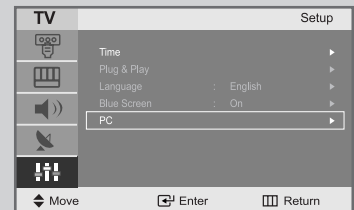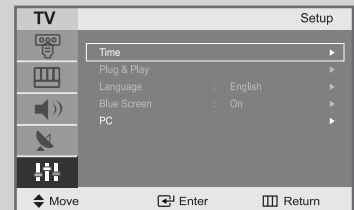
*See "Display Modes" on page 57.
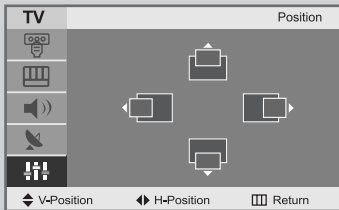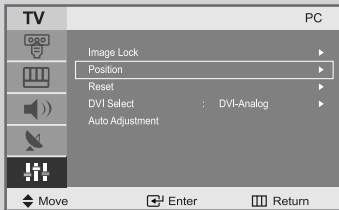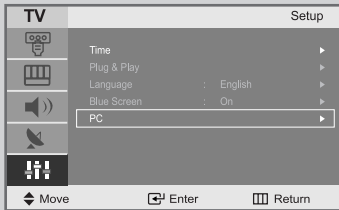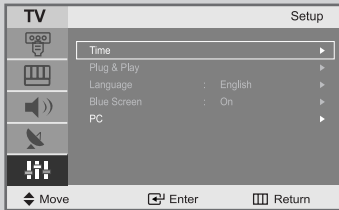
Coarse and Fine Tuning of the Image

The purpose of picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (coarse) and Fine tune again. After the noise has been reduced, re-adjust the picture so that it is aligned on the center of screen.

➤ Preset to PC mode by pressing the **PC** button on the remote control.

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select **PC**.
Press the **ENTER** button.

Result: The options available in the **PC** menu are displayed.

5 Press the **ENTER** button.

Result: The **Image Lock** menu is selected.

6 Press the ▲ or ▼ button to select **Coarse** or **Fine**.
Press the **ENTER** button.

Result: The horizontal bar is displayed.

7 Press the ◄ or ► button to adjust the screen quality.
Vertical stripes may appear or the picture may become blurry.

8 When you are satisfied with the settings, press the **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

TV		Setup
Time		►
Plug & Play		►
Language	: English	►
Blue Screen	: On	►
PC		►

◆ Move   ↵ Enter   ▥ Return

TV		Setup
Time		►
Plug & Play		►
Language	: English	►
Blue Screen	: On	►
PC		►

◆ Move   ↵ Enter   ▥ Return

TV		PC
Image Lock		►
Position		►
Reset		►
DVI Select	: DVI-Analog	►
Auto Adjustment		

◆ Move   ↵ Enter   ▥ Return

TV		Image Lock
Coarse		50
Fine		45

◆ Move   ↵ Enter   ▥ Return

△		
Coarse		50
▽		

Changing the Image Position

TV   Setup
Time   ▶
Plug & Play   ▶
Language   :   English   ▶
Blue Screen   :   On   ▶
PC   ▶
◆ Move   ← Enter   ▥ Return

TV   Setup
Time   ▶
Plug & Play   ▶
Language   :   English   ▶
Blue Screen   :   On   ▶
PC   ▶
◆ Move   ← Enter   ▥ Return

TV   PC
Image Lock   ▶
Position   ▶
Reset   ▶
DVI Select   :   DVI-Analog   ▶
Auto Adjustment
◆ Move   ← Enter   ▥ Return

TV   Position

◆ V-Position   ◀▶ H-Position   ▥ Return

➤ Preset to PC mode by pressing the **PC** button on the remote control.

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** button.

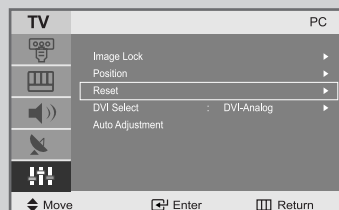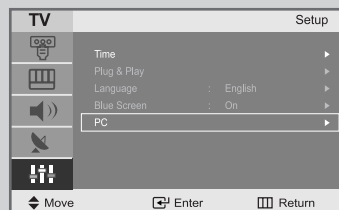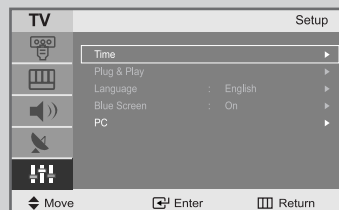**4** Press the ▲ or ▼ button to select **PC**.
Press **ENTER** button.

Result: The options available in the **PC** menu are displayed.

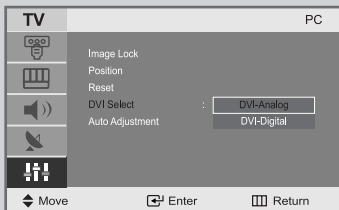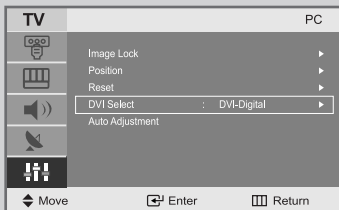**5** Press the ▲ or ▼ button to select **Position**.
Press the **ENTER** button.

Result: You can adjust the image **Position**.

6 Press the ▲ or ▼ button to adjust the vertical position.
Press the ◀ or ▶ button to adjust the horizontal position.

7 Press the **MENU** button to return to the previous menu or
press the **EXIT** button to return to normal viewing.

Initializing the Image Settings

You can replace all image settings with the factory default values.

➢ Preset to PC mode by pressing the **PC** button on the remote control.

1 Press the **MENU** button.

   Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

   Result: The options available in the **Setup** group are displayed.

3 Press the **ENTER** ⏎ button.

4 Press the ▲ or ▼ button to select **PC**.
   Press **ENTER** ⏎ button.

   Result: The options available in the **PC** menu are displayed.

5 Press the ▲ or ▼ button to select **Reset**.
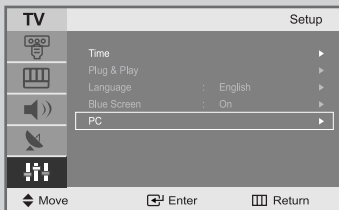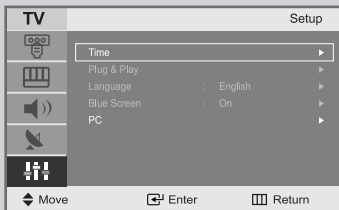   Press the **ENTER** ⏎ button.

6 Select the option (**Image Reset** or **Colour Reset**) to be replaced
   by pressing the ▲ or ▼ button.
   Press the **ENTER** ⏎ button.

   Result: You can initialize the option selected (Image Reset or
           Colour Reset) to the factory default values.

7 When you are satisfied with the settings, press the **MENU** button to
   return to the previous menu or press the **EXIT** button to return to
   normal viewing.

Selecting the DVI mode

TV — Setup

Time ▶
Plug & Play ▶
Language : English ▶
Blue Screen : On ▶
PC ▶

◆ Move   ↵ Enter   ▥ Return

TV — Setup

Time ▶
Plug & Play ▶
Language : English ▶
Blue Screen : On ▶
PC ▶

◆ Move   ↵ Enter   ▥ Return

TV — PC

Image Lock ▶
Position ▶
Reset ▶
DVI Select : DVI-Digital ▶
Auto Adjustment

◆ Move   ↵ Enter   ▥ Return

TV — PC

Image Lock
Position
Reset
DVI Select : DVI-Analog
Auto Adjustment DVI-Digital

◆ Move   ↵ Enter   ▥ Return

➤ Preset to PC mode by pressing the **PC** button on the remote control.

---

1 Press the **MENU** button.

    Result: The main menu is displayed.

---

2 Press the ▲ or ▼ button to select **Setup**.
    Press the **ENTER** ↵ or ► button.

---

3 Press the ▲ or ▼ button to select **PC**.
    Press the **ENTER** ↵ or ► button.

    Result: The options available in the **PC** menu are displayed.

---

4 Press the ▲ or ▼ button to select **DVI Select**.
    Press the **ENTER** ↵ or ► button.

---

5 Press the ▲ or ▼ button to select **DVI-Analog** or **DVI-Digital**.

---

6 Press **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

➤ You cannot adjust other settings of PC Setup if you select "DVI Digital" in DVI Select.

➤ If you select DVI-Analog or DVI-Digital in DVI Select, the selection remains unchanged even when the input source is changed or the power is switched off.

   - The default setting of DVI Select in PC Setup is "DVI Digital" and to change the setting to "DVI Analog," the user must change it manually.

   - To change the DVI Select setting in power-saving mode (DPMS), press the MENU button on the remote control to disable the DPMS function and make your selection in DVI Select while the DPMS mode remains disabled.

Adjusting the PC Screen Automatically

➤ Preset to PC mode by pressing the **PC** button on the remote control.

1 Press the **MENU** button.

   <u>Result</u>:   The main menu is displayed.

2 Press the ▲ or ▼ button to select **Setup**.

   <u>Result</u>:   The options available in the **Setup** group are displayed.

3 Press the **ENTER** button.
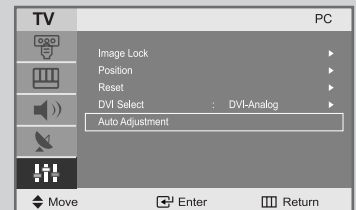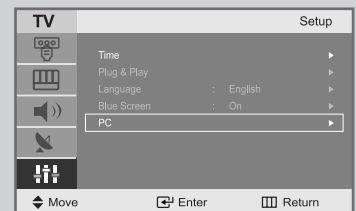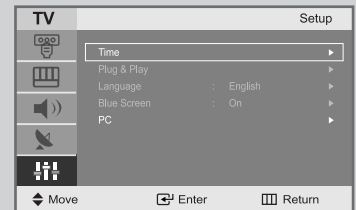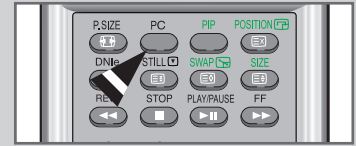
4 Press the ▲ or ▼ button to select **PC**.
   Press **ENTER** button.

   <u>Result</u>:   The options available in the **PC** menu are displayed.

5 Press the ▲ or ▼ button to select **Auto Adjustment**.
   Press the **ENTER** button.
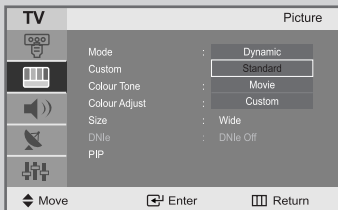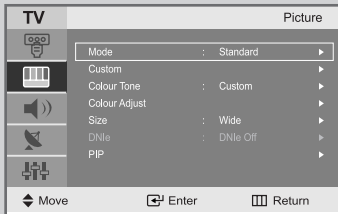
   <u>Result</u>:   The screen quality and position are automatically adjusted,
                and the screen returns to the original view a few seconds
                later.

6 When you are satisfied with the settings, press the **MENU** button to
   return to the previous menu or press the **EXIT** button to return to
   normal viewing.

Picture Mode

You can select the type of picture which best corresponds to your viewing requirements.

TV — Picture
- Mode : Standard ▶
- Custom ▶
- Colour Tone : Custom ▶
- Colour Adjust ▶
- Size : Wide ▶
- DNIe : DNIe Off ▶
- PIP ▶

◆ Move   ↵ Enter   ▥ Return

TV — Picture
- Mode : Dynamic / Standard / Movie / Custom
- Custom
- Colour Tone
- Colour Adjust :
- Size : Wide
- DNIe : DNIe Off
- PIP

◆ Move   ↵ Enter   ▥ Return
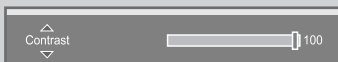
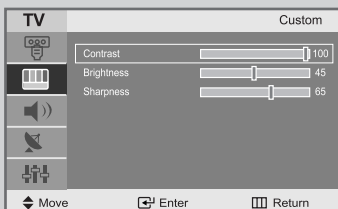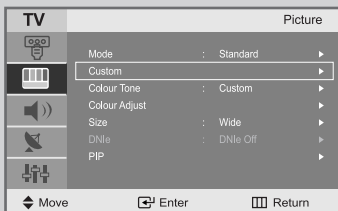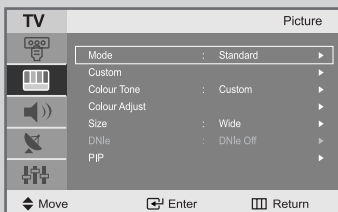**1** Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Picture**.

Result: The options available in the **Picture** group are displayed.

3 Press the **ENTER** button.

4 Press the **ENTER** button.

Result: The **Mode** is selected.

5 Select the required picture effect by pressing the ▲ or ▼ button repeatedly. Press the **ENTER** button.

Result: The following picture effects are available:
Dynamic - Standard - Movie - Custom


Adjusting the Custom Picture

Your set has several settings which allow you to control picture quality.

TV — Picture
- Mode : Standard ▶
- Custom ▶
- Colour Tone : Custom ▶
- Colour Adjust ▶
- Size : Wide ▶
- DNIe : DNIe Off ▶
- PIP ▶

◆ Move   ↵ Enter   ▥ Return

TV — Picture
- Mode : Standard ▶
- Custom ▶
- Colour Tone : Custom ▶
- Colour Adjust ▶
- Size : Wide ▶
- DNIe : DNIe Off ▶
- PIP ▶

◆ Move   ↵ Enter   ▥ Return

TV — Custom
- Contrast ▯ 100
- Brightness 45
- Sharpness 65

◆ Move   ↵ Enter   ▥ Return

△
Contrast ▯ 100
▽

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Picture**.

Result: The options available in the **Picture** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select the **Custom**.
Press the **ENTER** button.

5 Select the option (**Contrast**, **Brightness, Sharpness**) to be adjusted by pressing the ▲ or ▼ button.
Press the **ENTER** button.

Result: The horizontal bar is displayed.

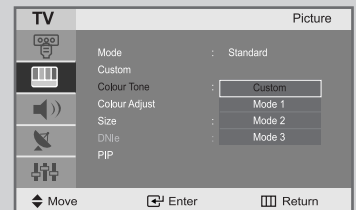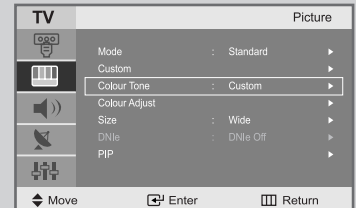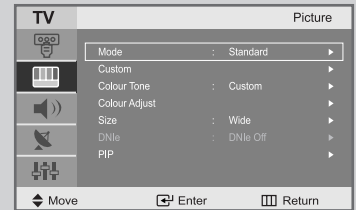**6** Press the ◀ or ▶ button to reach the required setting.

7 When you are satisfied with the setting, press the **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

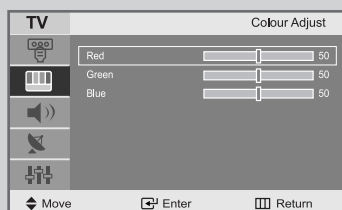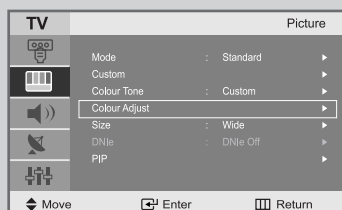➢ If you make any changes to these settings, the picture standard is automatically switched to **Custom.**

Adjusting the Screen Background Colour

You can change the screen background colour according to your preference.

1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Picture**.

Result: The options available in the **Picture** group are displayed.

3 Press the **ENTER** button.

4 Press the ▲ or ▼ button to select the **Colour Tone**.
Press the **ENTER** button.

Result: The following options are available:
Custom - Mode 1 - Mode 2 - Mode 3

5 When you are satisfied with your choice, press the **EXIT** button to return to normal viewing.

TV		Picture
Mode	:	Standard ▸
Custom		▸
Colour Tone	:	Custom ▸
Colour Adjust		▸
Size	:	Wide ▸
DNIe	:	DNIe Off ▸
PIP		▸

◆ Move   ↵ Enter   ▥ Return

TV		Picture
Mode	:	Standard ▸
Custom		▸
Colour Tone	:	Custom ▸
Colour Adjust		▸
Size	:	Wide ▸
DNIe	:	DNIe Off ▸
PIP		▸

◆ Move   ↵ Enter   ▥ Return

TV		Picture
Mode	:	Standard
Custom		
Colour Tone	:	Custom
Colour Adjust	:	Mode 1
Size	:	Mode 2
DNIe	:	Mode 3
PIP		

◆ Move   ↵ Enter   ▥ Return

Customizing the colour

TV		Picture
Mode	:	Standard ▶
Custom		▶
Colour Tone	:	Custom ▶
Colour Adjust		▶
Size	:	Wide ▶
DNIe	:	DNIe Off ▶
PIP		▶

◆ Move   ⏎ Enter   ⊞ Return

TV		Picture
Mode	:	Standard ▶
Custom		▶
Colour Tone	:	Custom ▶
Colour Adjust		▶
Size	:	Wide ▶
DNIe	:	DNIe Off ▶
PIP		▶

◆ Move   ⏎ Enter   ⊞ Return

TV	Colour Adjust
Red	50
Green	50
Blue	50

◆ Move   ⏎ Enter   ⊞ Return

△ Red ▽   50
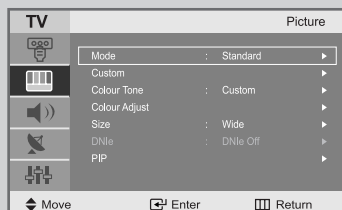
1 Press the **MENU** button.

Result: The main menu is displayed.

2 Press the ▲ or ▼ button to select the **Picture**.

Result: The options available in the **Picture** group are displayed.

3 Press the **ENTER** ⏎ button.

4 Press the ▲ or ▼ button to select the **Colour Adjust**.
Press the **ENTER** ⏎ button.

5 Select the option (**Red, Green, Blue**) to be adjusted by pressing the ▲ or ▼ button.
Press the **ENTER** ⏎ button.

Result: The horizontal bar is displayed.

6 Press the ◄ or ► button to reach the required setting.

7 When you are satisfied with the setting, press the **MENU** button to return to the previous menu or press the **EXIT** button to return to normal viewing.

Teletext Feature

*Most television channels provide written information services
via teletext.
Information provided includes:*

◆ *Television programme times.*
◆ *News bulletins and weather forecasts.*
◆ *Sports results.*
◆ *Travel information.*

This information is divided into numbered pages (see diagram).

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indicators.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.
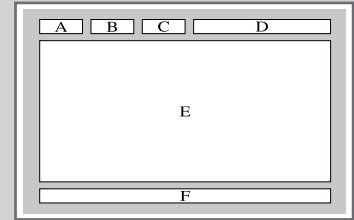
➢ Teletext information is often divided between several pages displayed
in sequence, which can be accessed by:

◆ Entering the page number
◆ Selecting a title in a list
◆ Selecting a coloured heading (FASTEXT system)

Displaying the Teletext Information

You can display Teletext information at any time on your set.

☞ For Teletext information to be displayed correctly, channel reception must be stable; otherwise:

◆ Information may be missing

◆ Some pages may not be displayed

1 Select the channel providing the Teletext service using the **P ∧** (▤) or **P ∨** (▤) button.

2 Press the **TTX/MIX** (▤/▨) button to activate the teletext mode.

Result: The contents page is displayed. It can be redisplayed at any time by pressing the ▤ (index) button.

3 If you wish to display the actual broadcast at the same time as the teletext page, press the **TTX/MIX** (▤/▨) button again.

4 To return to normal viewing, press the ▤ (cancel) button.

5 Press the **TV** ▭ button again to exit the teletext display.

Selecting a Page by Number

You can enter the page number directly by pressing the numeric buttons on the remote control.

1   Enter the three-digit page number given in the content by pressing the corresponding numeric buttons.

       <u>Result</u>:   The current page counter is incremented and the page is then displayed.

2   If the selected page is linked with several secondary pages, the secondary pages are displayed in sequence. To freeze the display on a given page, press the ▤(hold) button. Press the ▤(hold) button again to resume.

Using the various display options:

To display...	Press the...
◆ Hidden text (answers to quiz games, for example)	▤? (reveal)
◆ The normal screen	▤? (reveal) again
◆ A secondary page, by entering its 4-digit number	▤◉ (subpage)
◆ The next page	▤ᵒ (page up)
◆ The previous page	▤ (page down)
◆ Double-size letters in the: • Upper half of the screen • Lower half of the screen	▤ (size) • Once • Twice
◆ Normal screen	• Three times

Using FLOF to Select a Page

The various topics included in the teletext pages are colour-coded, and can be selected by pressing the coloured buttons on the remote control.

1   Display the teletext contents page by pressing the **TTX/MIX** button.

2   Press the coloured button corresponding to the topic that you wish to select; the available topics are given on the status line.

Result: The page is displayed with other coloured information that can be selected in the same way.

To display the:	Press the:
Previous page	Red button.
Next page	Green button.

3   To display the previous or next page, press the corresponding coloured button.

4   To display the subpage, see the following steps.

◆   Press the ⊟ (subpage) button.

Result: The available subpages appear.

◆   Select the required subpage.
Subpages can be scrolled by using the ⊡ or ⊟ button.

Storing Teletext Pages

You can store up to four teletext pages to display them later at leisure.

1   Select the LIST mode using the ▤ (LIST/FLOF) button.

      <u>Result</u>:   Four 3-digit numbers are displayed in different colours.

      ➤   The ▤ (LIST/FLOF) button is used to switch between the LIST and FLOF modes.

2   Press the coloured button corresponding to the page that will be replaced.

3   Enter the new page number using the numeric buttons.

4   Repeat steps **2** and **3** for each page to be stored, using a different coloured button each time.

5   Press the ▤◊ (store) button until the corresponding blocks blink.

Troubleshooting: Before Contacting Service Personnel

Before contacting Samsung after-sales service, perform the following simple checks.

If you cannot solve the problem using the instructions below, note the model and serial number of your set and contact your local dealer.

No sound or picture.	◆ Check that the mains lead has been connected to a wall socket. ◆ Check that you have pressed the ⏻**POWER** button. ◆ Check the picture contrast and brightness settings. ◆ Check the volume.
Normal picture but no sound.	◆ Check the volume. ◆ Check whether the **MUTE** button has been pressed on the remote control.
No picture or black and white picture.	◆ Adjust the colour settings. ◆ Check that the broadcast system selected is correct.
Sound and picture interference.	◆ Try to identify the electrical appliance that is affecting the set and move it further away. ◆ Plug your set into a different mains socket.
Blurred or snowy picture, distorted sound.	◆ Check the direction, location and connections of your aerial. This interference is often due to the use of an indoor aerial.
Remote control malfunctions.	◆ Replace the remote control batteries. ◆ Clean the upper edge of the remote control (transmission window). ◆ Check the battery terminals.
"Check signal cable." message is displayed.	◆ Check that the signal cable is firmly connected to the PC. ◆ Check that the PC is turned on.
In PC mode, "Not supported Mode" message is displayed.	◆ Check the maximum resolution and the frequency of the video Adapter. ◆ Compare these values with the data in the Display Modes. (Refer to page 57)
In PC mode, horizontal or vertical bars appear to flicker, jitter or shimmer on the image.	◆ Adjust the Coarse or Fine function. (Refer to page 41)
In PC mode, the screen is black and the power indicator light is steady amber or blinks every 0.5 or 1 second.	◆ The TV is using its power management system. ◆ Move the computer's mouse or press any key on the keyboard.

Troubleshooting: Before Contacting Service Personnel

In PC mode, the image is not stable and may appear to vibrate.	◆ Check that the display resolution and frequency from your computer or video board is an available mode for your set. On your computer check: Control Panel, Display, Settings. ◆ If the setting is not correct, use your computer utility programme to change the display settings.

➤ Your set supports multiscan display functions within the following frequency domain:

Horizontal frequency -	30 ~ 68 kHz
Vertical frequency -	56 ~ 85 Hz
Maximum refresh rate -	1280 x 720 @ 60Hz

In PC mode, the image is not centred on the screen.	◆ Adjust the horizontal and vertical position.

TFT LCD panel manufactured by using advanced semiconductor technology with precision of 1ppm (one millionth) above is used for this product. This is not from bad quality and you can use it without uneasiness.
For example, the number of TFT LCD sub pixels that is contained in this product are 2,764,800.

Power Saver

This set has a built-in power management system called PowerSaver. This system saves energy by switching your set into a low-power mode when it has not been used for a certain period of time. The available modes are "On", "Standby", "Sleep", and "Deep Sleep". PowerSaver operates with a VESA DPMS compliant video card installed in your computer. You use a software utility installed on your computer to set up this feature.

State	Normal Operation	Power-Saving Function mode (EPA/NUTEK)
Horizontal Sync	Active	Inactive
Vertical Sync	Active	Inactive
Power Indicator	Green	Red, Blinking (1 sec interval)
Power Consumption	80 W (Normal)	Less than 5 W

➤ *This set automatically returns to normal operation when horizontal and vertical sync are restored.*
This occurs when you move the computer's mouse or press any key on the keyboard.

Technical and Environmental Specifications

| Model	LA22N21B
Panel	
Size	22" Diagonal
Display Size	487.68 (H) X 274.32(V) mm (19.2(H) x 10.8(V) inch)
Type	PVA
Pixel Pitch	0.381(H) X 0.381(V)mm (0.015(H) x 0.015(V) inch)
Viewing Angle	170/170 (Horizontal/Vertical)
Frequency	
Horizontal	30 ~ 68 kHz
Vertical	56 ~ 85 Hz
Display colour	16,194,277 colours
Display Resolution	
Maximum Mode	1280 x 720 @ 60 Hz
Input Signal	
Sync.	H/V Separate, TTL, P. or N.
Video Signal	RGB,Analog, 0.7 Vp-p @ 75 ohm
Power Supply	
Input	AC 100 ~ 240 V (50 / 60 Hz)
Power Consumption	
Normal	80 W
Power Saving	< 5 W
Dimensions (W x D x H) / Weight	
TV Body	599 x 112.7 x 418 mm / 8.26 kg (23.58 x 4.43 x 16.45 inch / 18.21 lbs)
With Stand	599 x 209.4 x 439 mm / 8.98 kg (23.58 x 8.24 x 17.28 inch / 19.79 lbs)
Environmental Considerations	
Operating Temperature	10 °C to 40 °C (50 °F to 104 °F)
Operating Humidity	10% to 80%
Storage Temperature	-25 °C to 45 °C (-13 °F to 113 °F)
Storage Humidity	5% to 95%
Audio Characteristics	
Audio Input 1	RCA Jack Red(R) White(L), 0.5Vrms (-9dB)
Audio Input 2	3.5ø Stereo Jack, 0.5Vrms (-9dB)
Headphone Output	Max. 10mW Output (3.5ø Stereo Jack 32)
Frequency	RF: 80Hz ~ 15kHz (at- 3dB)
Response	A/V: 80Hz ~ 20kHz (at - 3dB)

Display Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically.
If the signal from the system does not equal the standard signal mode, adjust the mode with reference
to the Video card user guide, as the screen may not display or only the power LED may be on.
For the display modes listed below, the screen image has been optimised during manufacture.

| Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
Macintosh	640 X 480	35.000	66.667	30.240	- / -
	832 X 624	49.726	74.551	49.500	+ / +
IBM	640 X 480	31.496	59.940	25.175	- / -
	720 X 400	31.469	70.087	28.322	- / -
VESA	640 X 480	37.861	72.809	31.500	- / -
	640 X 480	37.500	75.000	31.500	- / -
	640 X 480	43.269	85.008	36.000	- / -
	800 X 600	35.156	56.250	36.000	+ / -
	800 X 600	37.879	60.317	40.000	+ / +
	800 X 600	48.077	72.188	50.000	+ / +
	800 X 600	46.875	75.000	49.500	+ / +
	800 X 600	53.674	85.061	56.250	- / -
	1024 X 768	48.363	60.004	65.000	- / -
	1024 X 768	56.476	70.069	75.000	- / -
	1024 X 768	60.023	75.029	78.750	+ / +
	1024 X 768	68.677	84.997	94.500	+ / +
GTF	1280 X 720	44.769	60.000	74.841	- / +

Retractable Stand

Tilt the screen until you feel comfortable.
The maximum tilt angle is 7 degrees in the backward direction.
Please do not tilt the television beyond the specified range.
Using excessive force to tilt the television beyond the specified
range may cause permanent damage to the mechanical part of
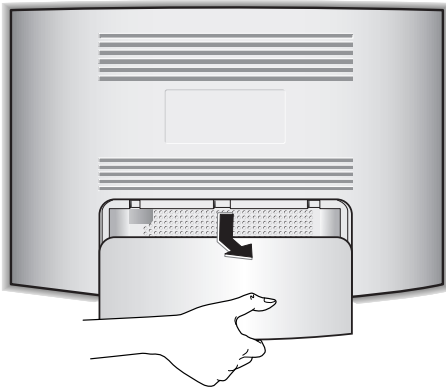the stand.

0~7°
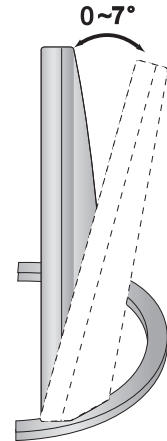
Using the Anti-Theft Kensington Lock

The Kensington lock is a device used to physically fix the system when using it in a public place.
The locking device has to be purchased separately. The appearance and locking method may differ
from the illustration depending on the manufacturer. Please refer to the manual provided with the
Kensington lock for proper use.
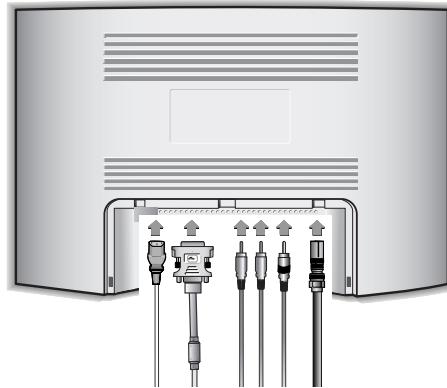
Cable

Figure 2

Figure 1

<Optional>
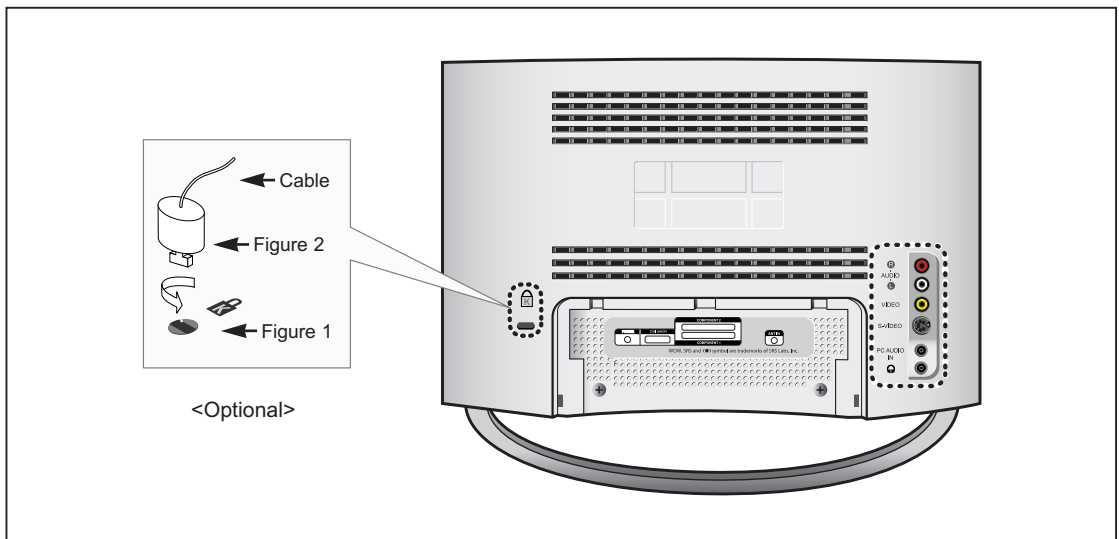
1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1), and turn it in the locking direction
   (Figure 2).
2. Connect the Kensington lock cable.
3. Fix the Kensington lock to a desk or a heavy stationary object.

How to connect the cables and stand base

1 Remove the cover as shown in the picture.

2 Connect the cables as shown in the picture.
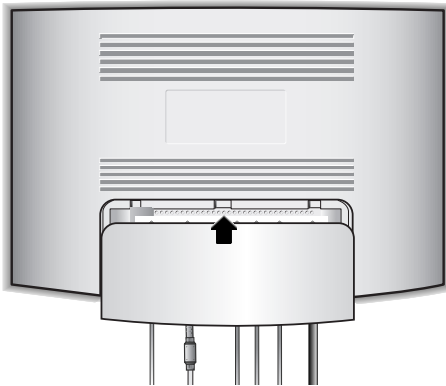
3 Replace the cover.
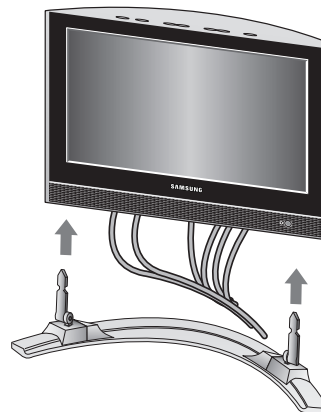
4 Attach the stand to the TV set as shown in the picture.

Note : The curved side of the stand base should be placed at the back of the TV set as shown in the above figure.

> ⚠ Do NOT lift the TV set by the stand.
> If the stand is not screwed to the TV set,
> lifting the set by the stand may cause injury.

Setting Up Your Remote Control

After it has been set up properly, your remote control can operate in five different modes: TV, VCR, CABLE, DVD, or Samsung Set-top box. Pressing the corresponding button on the remote control allows you to switch between these modes, and control whichever piece of equipment you choose.
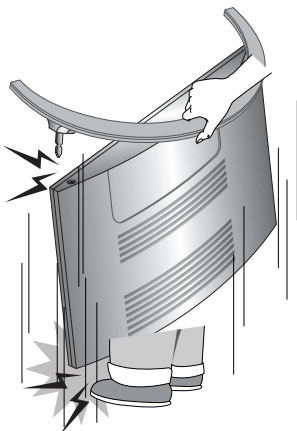
Note

The remote control might not be compatible with all DVD Players, VCRs and Cable boxes.
This remote control is only compatible with Samsung Set-top box.

Setting Up the Remote to Operate Your VCR.

---

1 Turn off your VCR.

---

2 Press the **SELECT** button and make sure that the VCR LED is illuminated.

---

3 Press the **SET** button on your TV's remote control.

---

4 Using the number buttons on your remote control, enter three digits of the VCR code listed on page 63 of this manual for your brand of VCR. Make sure you enter three digits of the code, even if the first digit is a "0".
(If more than one code is listed, try the first one.)

---

5 Press the **POWER** button on the remote control.
Your VCR should turn on if your remote is set up correctly.

 If your VCR does not turn on after set-up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of VCR.
If no other codes are listed, try each VCR code, 000 through 086.

Note on Using Remote Control Modes: VCR
When your remote control is in "VCR" mode, the volume buttons still control your TV's volume.

Setting Up Your Remote Control

Setting Up the Remote to Operate Your Cable Box.

1   Turn off your cable box.

2   Press the **SELECT** button and make sure that the CABLE LED is
         illuminated.

3   Press the **SET** button on your TV's remote control.

4   Using the number buttons on your remote control, enter three digits
         of the cable box code listed on page 63 of this manual for your
         brand of cable box. Make sure you enter three digits of the code,
         even if the first digit is a "0".
         If there is more than one code listed, try the first one.

5   Press the **POWER** button on the remote control.
         Your cable box should turn on if your remote is set up correctly.

         If your cable box does not turn on after set-up, repeat steps 2, 3 and 4,
         but try one of the other codes listed for your brand of cable box. If no
         other codes are listed, try each code, 000 through 074.

Note on Using Remote Control Modes: Cable Box
When your remote control is in "CABLE" mode, the volume
buttons still control your TV's volume.

Setting Up Your Remote Control

Setting Up the Remote to Operate Your DVD.

1   Turn off your DVD.

2   Press the **SELECT** button and make sure that the DVD LED is illuminated.

3   Press the **SET** button on your TV's remote control.

4   Using the number buttons on your remote control, enter three digits of the DVD code listed on page 63 of this manual for your brand of DVD. Make sure you enter three digits of the code, even if the first digit is a "0".
If there is more than one code listed, try the first one.

5   Press the **POWER** button on the remote control.
Your DVD should turn on if your remote is set up correctly.

   If your DVD does not turn on after set-up, repeat steps 2, 3 and 4, but try one of the other codes listed for your brand of DVD.
If no other codes are listed, try each code, 000 through 009.

Note on Using Remote Control Modes: DVD
When your remote control is in "DVD" mode, the volume buttons still control your TV's volume.

Setting Up Your Remote Control

Remote Control Codes

VCR Codes

Brand	Code
Aiwa	024
Curtis Mathes	009 016 017 023 024 055 062 073 076
Funai	024
GE	009 016 017 041 062
Hitachi	014 024 044 045
JC Penny	011 014 016 017 023 025 039 044 060 062
Kenwood	011 023 025 039 055
Magnavox	017 038 062 065
Marantz	011 017 023 025 038 039 055 070
NEC	011 023 025 039 055 070 073
Panasonic	017 062 084 086
Philco	017 038 062 065
Philips	017
Pioneer	014 025 042 059
RCA	009 014 016 017 037 044 046 063 078
Samsung	000
Sanyo	011 021
Sears	011 014 018 021 027 028 044 052 057
Sharp	015 036 048 054
Sony	026 035 047
Sylvania	017 024 038 062 065
Toshiba	014 022 028 057 058

Cable Box Codes

Brand	Code
Hitachi	045 051 054
Panasonic	011 035 047 069
Philips	015 016 027 029 034 036 037 040 041 048 049
Pioneer	026 028 052
RCA	008 035 074
Samsung	000
Zenith	022 050 065 069

DVD Codes

Brand	Code
Curtis Mathes	009
JVC	003
LG	001
Samsung	000
Sony	004
Panasonic	006
ProScan, RCA	008

Memo

– AFTER SALES SERVICE

- Do not hesitate to contact your retailer or service agent if a change in the performance of your product indicates that a faulty condition may be present.

SAMSUNG
ELECTRONICS